federal register

Thursday
April 16, 1992

Part III

Environmental Protection Agency

40 CFR Part 52

State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[FRL-4120-2]

RIN 2060-AD12

State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990

AGENCY: Environmental Protection Agency (EPA).

ACTION: General preamble for future proposed rulemakings.

SUMMARY: Title I of the Clean Air Act Amendments (CAAA) of 1990 revamped the requirements for areas that have not attained the national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), particulate matter (PM-10), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead. In addition, title I made numerous changes in the requirements for State implementation plans (SIP's) in general, including the provisions governing EPA's processsing of SIP revisions, as well as the repercussions of State failures to meet the various SIP requirements. Many of these requirements call for early action by the States. For example, under title I, States with pre-enactment ozone nonattainment areas were to begin submitting SIP revisions 6 months after enactment (May 15, 1991).

This General Preamble principally describes EPA's preliminary views on how EPA should interpret various provisions of title I, primarily those concerning SIP revisions required for nonattainment areas. Although the General Preamble includes various statements that States must take certain actions, these statements are made pursuant to EPA's preliminary interpretations, and thus do not bind the States and the public as a matter of law. In the near future, EPA will begin to take action, pursuant to notice-and-comment rulemaking, on SIP revisions submitted by the States, and issue rules, pursuant to notice-and-comment rulemaking, on various title I provisions. During the comment periods for those subsequent actions, members of the public will have the opportunity to comment on the relevant issues. This General Preamble is an advance notice of how EPA generally intends, in those subsequent rulemakings, to take action on SIP submissions and to interpret various title I provisions.

FOR FURTHER INFORMATION CONTACT: Mr. Brock Nicholson, Chief, Policy Development Section, Ozone/CO Programs Branch (MD-15) at (919) 541-5517, for issues related to ozone or carbon monoxide; Mr. Eric Ginsburg at (919) 541-0877, Sulfur Dioxide/Particulate Matter Programs Branch (MD-15), for issues related to sulfur dioxide, particulate matter, or lead; Mr. Gary McCutchen at (919) 541-5592, Permits Programs Branch (MD-15), for issues related to new source review, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; Ms. Paula Van Lare at (202) 260-3450 for issues related to mobile sources, 401 M Street, SW., Washington, DC 20460.

SUPPLEMENTARY INFORMATION:

Note: In accordance with 1 CFR 5.9(c), this document is published in the Proposed Rules category.

A list of cited references are contained in the appendices which are available from the public docket, A-91-35 at EPH, 400 M Street, S.W. Washington, D.C. Appendices A through E will be published in a subsequent **Federal Register.**

OUTLINE

I. Purpose
II. Background
A. History
B. Overview of title I of 1990 CAAA
1. Designations/classifications
2. Pollutant-specific requirements
3. General requirements
4. Part D, subpart 1
5. Miscellaneous
6. Relationship between titles I and II of 1990 CAAA
III. SIP Requirements
A. Ozone
1. General
2. Marginal areas
3. Moderate areas
4. Serious areas
5. Severe areas
6. Extreme areas
7. Nonclassifiable nonattainment areas
8. Transport areas
9. Multi-state ozone nonattainment areas
B. Carbon Monoxide
1. Moderate areas 12.7 ppm and below
2. Moderate areas above 12.7 ppm
3. Serious areas
4. Nonclassifiable areas
5. Multi-state CO attainment areas
6. Areas with significant stationary source emissions
7. Guidance on waivers for mobile source measures
C. Particulate Matter
1. Statutory background
2. Determination of RACM/RACT
3. SIP's that demonstrate attainment
4. SIP's that do not demonstrate attainment
D. Sulfur Dioxide
1. Designations
2. Classifications
3. Plan submission deadlines
4. Attainment dates
5. Nonattainment plan provision
6. Sources of SO_2 policy and guidance
E. Lead
1. Statutory background
2. Pre-SIP submittal activities
3. Transition issues
F. Nitrogen Dioxide
1. Designations
2. Plan deadlines
3. Attainment dates
4. Nonattainment plan provisions
G. New Source Review (NSR) Nonattainment Permit Requirements
1. Contruction bans
2. Emissions offsets
3. Creditable emission reductions for netting
4. Growth allowances
5. Analysis of alternatives
6. Control technology information
7. Innovative controls for rocket engines and motors
8. Exemptions for stripper wells
9. Outer Continental Shelf Source Applicability
10. Tribal lands applicability
11. Stationary source definition
12. Temporary clean coal technology demonstration projects
13. Failure to submit NSR rules by statutory deadlines
H. General
1. Part D, subpart 1/section 110 (to the extent not covered under pollutant-specific)
2. Conformity
3. Planning requirements including section 174
4. Economic incentives
5. Section 172(c)(1) requirement for all Reasonably Available Control Measures (RACM)
6. Redesignations
7. Transition issues
8. General savings clause
IV. EPA Requirements
A. SIP Processing Requirements
1. Completeness
2. Partial approvals
B. Sanctions and Other Safeguards
1. Background under 1977 CAAA
2. Available measures under 1990 CAAA
3. Application and timing of the section 179 Sanctions
C. Federal Implementation Plans (FIP's)
V. Miscellaneous
A. Relationship of Title I to Title V
1. Introduction
2. Purposes of a SIP
3. Fundamental principles for SIP's/control strategy
4. Satisfying SIP principles
5. Approaches to ensure that permits properly support SIP's
B. Tribal Implementation Plans
C. Section 179B Requirements
VI. Other Requirements
A. Executive Order 12291
B. Regulatory Flexibility Act

I. Purpose

The primary purpose of this preamble is to provide the public with advance notice of how EPA generally intends to interpret various requirements and associated issues that have arisen under title I of the CAAA. The information

provided in this preamble is therefore intended to guide States and to help ensure that they prepare and submit SIP's or SIP revisions that adequately comply with the title I provisions. For quick reference, title I submittals and other actions concerning ozone and CO nonattainment areas required during the early years following the November 15, 1990 enactment of the 1990 CAAA, are listed chronologically (by the date each action is due) on Table 1.

TABLE 1.—MAJOR REQUIRED STATE SUBMITTALS AND ACTIONS

Submittal/action	Ozone classification					CO classification	
	Marginal	Moderate	Serious	Severe	Extreme	Moderate	Serious
By March 15, 1991 (120 days after enactment) [1]:							
A request for more time to study boundaries for serious + area that was designated and classified as of enactment (due 45 days after classification).			X	X	X		X
List of all areas with proposed designations and boundaries (except boundaries for serious + areas with requests for more time to study).	X	X	X	X	X	X	X
A request for more time to study boundaries for serious + area that was designated and classified at 240 days after enactment (requested to be in March 15, 1991, submittal; latest date for request is August 27, 1991).			X	X	X		X
Commitment to submit SIP revision to correct I/M program (i.e., implement previously-required program) ("immediate submittal" of revision for I/M) [b].	X					X	
Commitment to submit SIP revision to implement basic I/M program ("immediate submittal" of revision for I/M) (plus serious areas where urbanized population < 200,000) [b].		X					
By May 15, 1991 (6 months after enactment):							
Submit RACT Corrections	X	X	X	X	X		
Northeast ozone transport commission convenes (applies to Northeast transport region).							
By May 15, 1992 (18 months after enactment):							
Commence actions to adopt and implement enhanced monitoring program requirements.			X	X	X		
By November 15, 1992 (24 months after enactment):							
Submit comprehensive emission inventory	X	X	X	X	X	X	X
Submit requirements for emission statements	X	X	X	X	X		
Submit VOC RACT rules (existing CTG's; non-CTG major sources).		X	X	X	X		
Submit NSR rules	X	X	X	X	X		
Submit Stage II vapor recovery program		X	X	X	X		
Submit Enhanced I/M program; begin implementation [b]			X	X	X		
Submit requirements for transport region (VOC, NO_x RACT and NSR; Enhanced I/M) (applies across transport region).							
Submit conformity requirements [2]	X	X	X	X	X	X	X
Submit measure for reducing VMT				X	X		X
Submit CO attainment demonstration						[3]X	X
Submit contingency measures (if VMT forecasts exceeded)						[3]X	X
Submit transportation control measures (TCM's)				X	X		X
Submit revision requiring employer trip reduction programs (25% vehicle occupancy rate reductions).				X	X		
Submit oxygenated fuel program						X	X
By November 15, 1993 (36 months after enactment):							
Submit "15% SIP" (i.e., measures showing 15% reduction in VOC baseline).		X	X	X	X		
Submit demonstration re: additional VOC, NO_x reductions as necessary to attain.		X					
Submit NSR program (CO)						X	X
Submit contingency measures for failures to meet milestones			X	X	X		
By November 15, 1994 (4 years after enactment):							
Submit attainment demonstration (photochemical dispersion modeling).			X	X	X		
Submit RFP demonstration showing 3% average annual reductions commencing 6 years after enactment.			X	X	X		
Submit clean-fuel vehicle program			[4]X	X	X		
Submit Stage II program (or "reflect comparable measures") in transport region.							
Submit plans to incorporate EPA's emission diagnostic rules (estimated time).	X	X	X	X	X		

[1] Certain submittals/actions may actually be required before the end of the time period specified. Check the narrative portion of the document for specific submittal time schedules. Also, the NO_x requirements of CAA section 182(f) will be addressed in supplements to the General Preamble.
[b] See Preamble discussion regarding compliance with submittal dates.
[2] Submittal dates will be delayed pending EPA rulemaking.
[3] Applies to ares with design values >12.7 ppm.
[4] As applicable in regards to Title II requirements.

The EPA's interpretation of title I provisions provided in the preamble will also provide a basis for subsequent EPA approval or disapproval of SIP submittals concerning NAAQS nonattainment areas. While this preamble should reflect the majority of the SIP requirements under title I, unique circumstances or as yet

unrecognized issues are likely to cause case-by-case exceptions to arise. The EPA intends to provide the public with a formal opportunity to comment on the provisions of this preamble, and other issues that may arise during subsequent rulemakings that take action on SIP revisions submitted by the States under title I and that set out EPA policy on various aspects of title I. This preamble is a General Preamble for those subsequent actions.

This preambles focuses primarily on the SIP submissions required for nonattainment areas under part D of the amended Act. It discusses specific issues concerning the proper interpretation of the title I requirements of areas designated nonattainment (and, for some pollutants, classified) under part D, title I, as well as the proper treatment of nonattainment areas that fall outside of the classification schemes. This preamble discusses requirements for the SIP submissions required for ozone, CO, PM–10, SO_2, NO_2, and lead nonattainment areas. In addition, this preamble discusses interpretation issues that have arisen concerning redesignations at attainment, some general SIP requirements, and EPA action on SIP submissions, as well as the various types of possible State failures to meet certain requirements and the consequent sanctions and Federal implementation plans (FIP's).

This preamble also sets forth EPA's interpretation of the various provisions in the amended Clear Air Act (Act) which change new source review (NSR) requirements for new and modified sources in nonattainment areas. The discussion includes EPA's intended interpretation of the minimum changes all States must make in their SIP's in order to comply with the amended NSR requirements and the deadlines for making these changes. States should use this General Preamble as guidance for revision of their NSR programs and submittal of their NSR SIP's. The Act mandated deadlines for NSR SIP submittals are: May 15, 1992 for areas without approved SO_2 SIP's prior to enactment, November 15, 1993 for all other SO_2 nonattainment areas designated prior to enactment; May 15, 1992 for NO_2; July 6, 1993 for lead nonattainment areas designated January 6, 1992; June 30, 1992 for PM–10 nonattainment areas; November 15, 1992 for ozone nonattainment areas and transport regions; November 15, 1993 for CO nonattainment areas with a design value of 12.7 ppm or less; and November 15, 1992 for CO nonattainment areas with a design value above 12.7 ppm. For future designations, NSR SIP submittals are due within 18 months from redesignation of all SO_2, NO_2, PM–10 and lead nonattainment areas, and within 2 years of redesignation for ozone and many CO nonattainment areas (within 3 years for CO nonattainment areas with design values less than 12.7 ppm).

Note also that these changes apply not only in designated nonattainment areas, but in ozone transport regions, certain tribal lands that are either in nonattainment areas or ozone transport regions, and to specified sources in the Outer Continental Shelf (OCS) area. The EPA intends to amend its existing NSR regulations (see 40 CFR 51.165, 51.166, 52.21, and 52.24) to reflect the changes mandated by the 1990 CAAA. Certain changes to the NSR requirements of the prevention of significant deterioration (PSD) program, part C, title I, will be addressed in a separate EPA proceeding and are not addressed in this preamble.

The timeframe, or scope, of this General Preamble covers the 6-year period following enactment. The SIP submittals for all affected areas are required to be developed, submitted, and approved by EPA within this time period. Complete plan submittals are required for certain PM–10 areas within 1 year of enactment. For ozone and CO nonattainment areas, regulations, emission inventories, control-measure strategies, and attainment demonstrations are due at varying dates from 6 months to 5 years after enactment. Generally, the guidance provided this document is intended to guide nonattainment SIP development until further statutory requirement are issued or EPA determines that revisions are appropriate.

The scope of this General Preamble is limited regarding several new provisions of the 1990 CAAA concerning emissions of the oxides of nitrogen (NO_x). Specifically, the General Preamble does not include a discussion of the new NO_x provisions with respect to the following topics: reasonably available control technology, new source review, interaction of titles I and IV, ozone transport region, section 185B report, and section 182(f). However, EPA recongizes the importance of providing timely guidance to the states to help assure the development and implementation of cost-effective control measures to reduce ozone levels. Accordingly, EPA will issue guidance as soon as possible, as in supplements to the General Preamble.

Six years is a significant milestone in the 1990 CAAA. Within 6 years of enactment, ozone nonattainment areas classified as moderate and above must achieve a 15 percent reduction in volatile organic compound (VOC) emissions, and moderate areas must attain the NAAQS. In addition, moderate CO nonattainment areas must also attain the NAAQS by December 31, 1995. Sulfur dioxide, PM–10, lead, and NO_2 nonattainment areas must also meet significant statutory milestones within the 6-year period.

The appropriate SIP components necessary to meet these goals by the sixth year and to provide adequate plans (due within the first 6 years) for attaining the NAAQS by the appropriate dates beyond the sixth year are covered in this General Preamble. To some extent, this preamble also applies to the period beyond 6 years. For example, it includes much of the guidance applicable to areas designated nonattainment for SO_2, PM–10, and lead beyond the 6-year period. Other guidance that covers the period beyond 6 years from enactment, demonstrating attainment of milestones or NAAQS and future planning for cities with the most significant air pollution problems, will be covered in future supplements to this General Preamble, as necessary.

This preamble is organized to meet the needs of individuals wanting either an overview of EPA's preliminary interpretation of the various provisions of title I of the 1990 CAAA or a detailed discussion of SIP submittal requirements for a specific NAAQS nonattainment classification. An area with a higher nonattainment classification (i.e., it more greatly exceeds a NAAQS than do areas with lower nonattainment classifications for the same NAAQS) generally must adopt all measures required of areas with lower nonattainment classifications, along with specific measures required for the higher classification. Therefore, the general introductory material at the beginning of the preamble and the material describing SIP requirements for all those levels of NAAQS nonattainment equal to or lower than the classification promulgated for a particular nonattainment area, are applicable to the area.

The General Preamble includes citations to its own sections and to sections of various Act (or CAAA) versions. Citations usually comply with the following conventions:

1. General Preamble sections begin with a roman numeral.

2. The Act is referenced by section [or by title (I–V), part (A–D of title I, A–C of title II)].

3. Earlier versions of the Act and the 1990 (or earlier) CAAA are identified by date or other specific reference.

A glossary listing the various acronyms used in this document is in appendix A. The bibliography for and list of cited references in this preamble is in appendix B.

II. Background

A. History

The long history of the Clean Air Act (Act) extends back before 1970. A summary of significant events occurring during its development is given in 52 FR 45044 (November 24, 1987).

That summary was part of EPA's proposed Post-1987 Ozone and CO Policy, which focused on requirements for areas that failed to attain the NAAQS by the statutory deadline of December 31, 1987. These proposed requirements included correcting certain SIP deficiencies and fully implementing the 1982 SIP's, adopting enhanced inspection and maintenance (I/M) programs, and submitting revised SIP's that demonstrated attainment over an expanded planning area as expeditiously as practicable by achieving at least a 3 percent per year reduction in the base year emissions.

On May 26, 1988 (in accordance with section 110(a)(2)(H)), EPA began issuing notices of SIP inadequacy (SIP calls) contained in letters to the Governors of States with areas that failed to attain the ozone and CO standards or that contributed to violations of the standards (see 53 FR 34500 (September 7, 1988)). These letters called on States to complete "Phase I" of their SIP call response. Under that phase, the States were to correct the SIP where it failed to meet EPA's existing part D guidance relating to control of VOC and CO emissions from stationary sources, satisfy unimplemented SIP commitments by adopting any missing control measures, and begin updating the base year emissions inventory for future attainment plans.

Beyond the basic attainment planning requirements discussed in the proposed Post-1987 Ozone and CO Policy, the 1977 CAAA included preconstruction permitting requirements for major new and modified sources under two programs, PSD and nonattainment NSR (respectively, parts C and D of title I). In nonattainment areas, new or modified sources as part of a preconstruction review process must (among other things): Obtain emissions offsets, and adopt control technology meeting a lowest achievable emission rate (LAER) standard. In 1980, EPA adopted new final regulations detailing SIP requirements to implement the NSR programs of parts C and D (see 45 FR 52676). The preamble to these regulations should be consulted for an in-depth discussion of the history of the NSR provisions of title I as well as a detailed explanation of program requirements prior to the 1990 CAAA.

B. Overview of Title I of 1990 CAAA

One of the main goals of the 1990 CAAA was to overhaul Act provisions that concerned planning for NAAQS attainment. Although one of the chief motivations for amending the Act was the failure of areas to attain the ozone and CO standards, the process of amending the statute provided an opportunity to address on a comprehensive basis the defects in existing law.

Title I of the CAAA (Provisions for Attainment and Maintenance of NAAQS) for the most part amends and supplements title I of the Act (Air Pollution Prevention and Control).[1] In light of the massive sweep and complexity of title I (1990 CAAA), the reader may find it helpful to view the Title as a collection of six sets of requirements. The following discussion provides a brief overview of these six sets:

1. Designations/Classifications

This set of requirements amends section 107 and the classification provisions in part D (Plan Requirements for Attainment) of the Act. For instance, section 181 addresses ozone classifications and section 186 addresses CO classifications. Specific requirements, by classification, are discussed in section III.A. and section III.B. of this notice.

2. Pollutant-specific requirements

Pollutant-specific requirements for designated ozone; CO; PM-10; and SO_2, NO_2, and lead nonattainment areas are found in part D at subparts 2, 3, 4, and 5, respectively. Where a conflict exists, the pollutant-specific requirements override the new-source permit requirements of section 173.

3. General Requirements

The revised general requirements for all plans regardless of the attainment demonstration required appear early in title I of the CAAA.

Note: The amendments modify numerous sections of the Act, including sections 107, 110, and 171 through 179. These general requirements include procedures for EPA review of SIP submittals (new Act section 110(k)); action on SIP revisions (section 110(1)) and a revised list of requirements for all plans (section 110(a)(2)).

4. Part D, subpart 1

This set includes general requirements for all designated nonattainment areas, especially those designated under new and revised NAAQS. In Subpart 1, Congress repealed the 1987 attainment deadlines for ozone and CO. In some cases, the pollutant-specific requirements contained in subparts 2–5 of part D override subpart 1's general provisions. Subpart 1 also includes a process governing sanctions for State failure to meet statutory requirements. Beyond that, it includes revised new-source permit requirements (section 172(c)(5) and section 173).

5. Miscellaneous

Other provisions of the Act address a variety of topics. Most of these provisions appear toward the end of title I of the CAAA. For example, new Act section 193 (technically in a new subpart 6 of part D) sets forth a "General Savings Clause" governing retention of certain types of previously enacted or mandated requirements. The new Act section 301(d) contains provisions related to Indian tribes. The miscellaneous provisions also include guidance on planning and transportation-related provisions.

6. Relationship Between Titles I and II of 1990 CAAA

Title I generally addresses the nonattainment SIP requirements and title II deals with control of mobile source emissions. While title II principally deals with Federally implemented programs (e.g., Federal Motor Vehicle Control Program (FMVCP)), requirements related to SIP's, such as fuels programs and Reid vapor pressure (RVP), are also contained in the title. Therefore, guidance on implementing these programs will also be provided in this document.

III. SIP requirements

A. Ozone

1. General

(a) *Classifications.* New subpart 2 of part D (section 181) sets a new classification structure for ozone nonattainment areas based on the severity of the nonattainment problem. For each area classified under this section, the attainment date shall be as expeditious as practicable but no later than the date in the following table. The classification scheme is as follows:

[1] The CAAA also amend other titles; for example, new section 301 of the Act adds provisions regarding treatment of Indian tribes to title III of the Act.

Area classification	Design value, ppm	Primary standard attainment date
Marginal	0.121 up to (but not including) 0.138.	November 15, 1993.
Moderate	0.138 up to (but not including) 0.160.	November 15, 1996.
Serious	0.160 up to (but not including) 0.180.	November 15, 1999.
Severe	0.180 up to (but not including) 0.280.	November 15, 2005.
Extreme	0.280 and above.	November 15, 2010.

Additionally, a severe area with a 1986 to 1988 ozone design value of 0.190 up to, but not including, 0.280 parts per million (ppm) has 17 years (until November 15, 2007) to attain the NAAQS.

The designation/classification process for ozone was described in 56 FR 56694 (November 6, 1991).

(b) *Special classifications.* In addition to the five air quality-based classifications, some nonattainment areas do not fit into the classification scheme of section 181(a). The EPA has classified these areas as transitional, submarginal, or areas with incomplete data. Section III.A of this preamble describes the requirements for all areas (marginal to extreme and the special classifications) in much the same way as they are described in section 182.

(c) *Planning.* As provided in subpart 2, emission inventories, provisions for Stage II gasoline vapor recovery, motor vehicle I/M, NSR, stationary-source reasonably available control technology (RACT), and certain other planning or control measures are required within 2 years after enactment (November 15, 1992) for most of the previously and newly designated nonattainment areas. For a very few nonattainment areas, final determination of the nonattainment area boundries may not occur until only a few months before several major rules (e.g., Stage II, I/M, transportation control measures (TCM's), NSR, RACT) and the emission inventory must be submitted. These nonattainment areas should not delay their adoption of rules or preparation of inventories while the boundary determinations are proceeding. Rather, these areas should be prepared to readily adopt rules and complete their emission inventories for the broadest area under consideration should EPA conclude that such broader area is appropriate. The 1990 CAAA require all submittals due within 2 years (November 15, 1992) to address the entire nonattainment area; these submittals can not be delayed due to the final boundaries rulemaking under section 107(d).

(d) *Enforceability.* The EPA has recently developed new model RACT rules (which supersede the previously issued model rules) for controlling VOC emissions from source categories covered by the Group I, II, and III control technique guidelines (CTG's). These model rules are intended to be used by areas subject to RACT "fix-up" requirements in correcting existing RACT rules, as required by section 182(a) (see section III.A.2, marginal areas below), and by areas subject to RACT "catch up" requirements that are required to apply RACT measures in accordance with section 182(b)(2) of the Act (see section III.A.3, moderate areas below). The model RACT rules include provisions for compliance certification, recordkeeping, reporting, monitoring, and test methods and procedures to enable EPA and the States to determine compliance with the requirements of the regulations. For a number of source categories, these compliance provisions have been added to the model RACT rules to improve enforceability because the CTG's and previous guidance for these sources did not include such requirements.

In general, for a SIP regulation to be enforceable, it must clearly spell out which sources or source types are subject to its requirements and what its requirements (work practices, emission limits, etc.) are. The regulation also needs to specify the time frames within which these requirements must be met, and must definitively state recordkeeping and monitoring requirements appropriate to the type of sources being regulated. The recordkeeping and monitoring requirements must be sufficient to allow determinations on a continuing basis whether sources are complying. An enforceable regulation must also contain test procedures in order to determine whether sources are in compliance.

(e) *Structure of requirements.* for areas classified marginal to extreme, virtually all requirements are additive (e.g., a moderate area has to meet all marginal and moderate requirements, unless otherwise specified). The text below presents the requirements in the first applicable classification, then repeated only if the requirements are different for a higher classification.

2. Marginal Areas

(a) *Emission inventory.* See appendix B for pertinent guidance on emissions inventory requirements.

(1) *Schedule.* Section 182(a)(1) requires all nonattainment areas to submit a final, comprehensive, accurate, and current inventory of actual ozone season, weekday emissions from all sources within 2 years of enactment (November 15, 1992). The EPA requests that the draft inventory be submitted between January 1 and May 1, 1992 in order to facilitate early review and allow the submittal of an acceptable inventory in November 1992.

(2) *Requirements.* This initial inventory is for calendar year 1990 and is denoted as the base year inventory. It includes both anthropogenic and biogenic sources of VOC, NOx and CO. The inventory is to address actual VOC, NOx, and CO emissions for the area during the peak ozone season, which is generally the summer months. All stationary point sources and area sources, as well as highway and nonhighway mobile sources within the nonattainment area, stationary sources with emissions of 100 tons or greater per year within a 25-mile wide buffer of the designated nonattainment area, and any OCS sources are to be included in the compilation. Including sources within a 25-mile buffer is necessary to ensure that all sources capable of affecting air quality within the nonattainment area are adequately accounted for in modeling demonstrations and strategy development. For nonattainment areas that are required to do photochemical grid modeling pursuant to section 182(c)(2)(A) (see sections III.A.4.e, serious areas, and III.A.9, multi-State areas), the modeling domain will determine the appropriate size of the area that must be inventoried for modeling purposes.

As one of the first steps in developing the base year inventory, the States are to prepare an inventory preparation plan (IPP), which is due in final form to EPA by October 1, 1991. The IPP should briefly state how the State intends to develop, document, and submit its inventory. Another early step in the inventory development process is preparation of the point source portion of the base year inventory. Guidance for preparing emission inventories was issued in May 1991 ("Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I"). Because the point source portion of this guidance is essentially the same as it was for the post-1987 SIP's, States should have already begun gathering data on those

sources. States are encouraged to submit the point source portion of the inventory to EPA as early as January 1, 1992.

States that have fully completed portions of their base year inventories for 1987, 1988, or 1989 may request EPA approval to update these portions. Otherwise, States are required to prepare a completely new inventory with a 1990 base year. The EPA guidance on the procedure to request an update was provided in May 1991 ("Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I").

In July 1991, EPA issued an updated version of MOBILE4, its mobile source emissions estimation model. The updated version MOBILE4.1, replaces and supersedes MOBILE4. States, with the exception of California, are required to use MOBILE4.1 in determining highway mobile source emissions for all of their base year emission inventories under the CAAA. California will consult with the EPA Region IX Office in determining the appropriate mobile source model to use. If other States adopt California tailpipe standards, they should consult with their EPA Regional Office to determine the appropriate mobile model because MOBILE4.1 would not correctly reflect emissions from these States in the future. However, for the base year inventory, and until new California cars are introduced into an area, MOBILE4.1 should be used. The majority of the enhancements in the revised model are internal to the model and do not require the States to make any special procedural adjustments when running MOBILE4.1. The EPA's "Emission Inventory Requirements for Ozone State Implementation Plans," should be referred to for more information. The States will also be required to develop new 1990 base year inventories for highway mobile sources to account for fleet turnover, newly opened-to-traffic highway sections resulting in changes in vehicle miles traveled (VMT) and VMT patterns, and changes in speed limits. States are to follow new guidance for estimating VMT to be published in the **Federal Register** notice expected to be issued in [OMS to fill in].

New methodologies have been developed to calculate emissions from certain area of off-highway mobile source categories. The categories are solvent uses, railroads, and aircraft. The emission factors for nonroad engines and vehicles have not yet been changed, but may be revised as the result of a study required by the 1990 CAAA. Therefore, for these categories, new emission estimates must be developed by the States using the new methodologies. The new methodologies for calculating emissions for solvent use are contained in the May 1991 document "Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I"; and for railroads and aircraft in the July 1991 final draft chapters of the document "Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume IV." The States will be required to use these methods when preparing the area and off-highway mobile source portions of their emission inventories.

The EPA document "Procedures for Estimating and Applying Rule Effectiveness in Post-1987 Base Year Emission Inventories for Ozone and Carbon Monoxide State Implementation Plans" (June 1989) should be consulted for information on how to consider rule effectiveness when calculating emissions from stationary sources. One hundred percent rule effectiveness is the ability of a regulatory program to achieve all the emission reductions that could be achieved by full compliance with the applicable regulations at all sources at all times. For the purpose of base year inventories under the CAA, EPA will require the use of an 80-percent-effectiveness default value except as follows. The States are encouraged to derive local category-specific rule effectiveness factors, consistent with the tests and protocol prescribed in the March 31, 1988 memorandum from John S. Seitz, Director, Stationary Source Compliance Division, to Regional Air Division Directors regarding "Implementation of Rule Effectiveness Studies," or complete the questionnaire procedure for all of their source categories as prescribed in "Procedures for Estimating and Applying Rule Effectiveness in Post-1987 Base Year Emission Inventories for Ozone and Carbon Monoxide State Implementation Plans." Finally, the reader should refer to section III.A.9 on multi-State area requirements for additional information related to base year inventories.

By meeting the specific inventory requirements discussed above, the State will also satisfy the general inventory requirements of section 172(c)(3).

(3) *Other uses.* Many other inventories can be derived from the base year inventory. For example, areas may use their base year inventory as part of statewide inventories for purposes of regional modeling in transport areas. The base year inventory also plays an important role in modeling demonstrations for areas classified as moderate and above outside transport regions. Guidance has been developed to aid States in preparing emission inventories for photochemical grid modeling (for serious and above areas and multi-State moderate areas) ("Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Vol. II," May 1991, "UAM Applications Guidance" and "User's Guide for the Urban Airshed Model, Vol. 4." The reader should also refer to the discussion of attainment demonstration requirements for serious areas (section III.A.4.(e)). Guidance on emission inventory preparation for EKMA (for nonmulti-State moderate areas) is described in "Procedures for Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I," May 1991.

(b) *RACT corrections.* Section 182(a)(2)(A) requires ozone nonattainment areas to submit within 6 months of classification all rules and corrections to existing VOC RACT rules that were required under the RACT provision, section 172(b)(3) of the old law (and related guidance). The EPA published a **Federal Register** (56 FR 54554) notice describing this provision and the success of States in meeting the correction deadline, and the readers should refer to that notice. As explained in that notice, areas that were designated nonattainment under section 107 just prior to enactment of the 1990 CAAA are the only areas affected by this requirement because they are the only areas that were then subject to the RACT requirements of section 172(b). These areas were again designated attainment on the date of enactment of the 1990 CAAA, and were then classified under section 181(a)(1) by operation of law. Thus, those areas were required to submit their RACT "fix-ups" as a SIP revision by May 15, 1991.

Newly designated nonattainment areas are not subject to the RACT "fix-ups" required by section 182(a)(2)(A) because they were not subject to section 172(b) of the old law. This is the case even if the State has already adopted rules for the area as part of statewide RACT for purposes other than meeting pre-1990 Act section 172(b). For nonattainment areas that will be expanded to contain portions that were not designated nonattainment prior to enactment, the RACT corrections are due in 6 months (by May 15, 1991) only for the original nonattainment area. However, for moderate areas, the newly designated portions of a nonattainment

area will be subject to the RACT "catch-ups." As explained below in section III.A.3., each moderate nonattainment area (including the newly designated portion) is subject to the RACT "catch-up" requirements of section 182(b)(2), which provide for SIP submittals by November 15, 1992. The RACT "fix-ups" refer to corrections States are required to make to RACT rules that are already in force and to adoption by States of rules that were required by pre-1990 Act section 172(b) to be in force. The RACT "catch-up" refers to the application of RACT for all applicable sources listed in section 182(b)(2), regardless of what was previously required. For purposes of the RACT "fix-ups" requirement, areas that were treated as rural nonattainment areas under EPA policies implementing the pre-amended Act must submit corrections only for previously required rules (Group I and II CTG sources with maximum theoretical VOC emissions greater than 100 tons per year). Other rules (Group III CTG's and non-CTG rules) will be due by November 15, 1992 as part of the catch-up for those previously designated rural nonattainment areas that are classified as moderate or above upon enactment and are not otherwise designated as rural transport areas under the new Act.

(1) *Definition of corrections.* A deficiency is any rule, or in some cases a portion of a rule, that is less stringent than RACT as that requirement was interpreted in pre-1990 Act EPA guidance (issued under sections 108 and 172(b) of the old law). The EPA provided a list of deficiencies for each area as part of the ozone SIP call letters to each State (May–June 1988 and November 1989, notification published 53 FR 34500, September 7, 1988 and 55 FR 30973, July 30, 1990). The EPA also provided States with existing guidance documents and asked them to review rules independently to determine consistency with this guidance.

(2) *Consequences of failure to make corrections.* Sections 179 (a) and (b) and 110(m) provides for the imposition of sanctions and section 110(c) provides for promulgation of a FIP if EPA finds that a State failed to make a required submittal. Under section 179(a), EPA must impose at least one of the two mandatory sanctions listed in section 179(b) 18 months after EPA makes such a finding, unless EPA finds that the State has made a complete submittal in the interim to correct the rules. The second of the two sanctions must be imposed if the deficiency has not been corrected 6 months after the first sanction is imposed. Section 110(m) also includes provisions on sanctions. The EPA will be discussing those provisions in a subsequent **Federal Register** notice. Refer to section IV.B. for more discussion on sanctions. Under section 110(c), EPA also must promulgate a FIP no later than 2 years after finding a failure to submit.

On October 22, 1991, EPA published a notice (56 FR 54554) finding that nine States and the District of Columbia failed to make a RACT fix-up submittal required under section 182(a)(2)(A). The EPA also plans to publish a set of model Federal VOC regulations. The EPA will use these model regulations as a starting point for Federal promulgation of regulations under section 110(c) as necessary, and will provide an opportunity for comment at that time. To the extent practicable, EPA will formulate any Federal regulations on the model regulations. Federal regulations will be promulgated if the States do not correct the regulations before the end of the 2-year period commencing from the finding.

The EPA will also use the model regulations as the basis for Federal regulations to apply where EPA disapproves any regulation that has been submitted. Finally, EPA expects States may want to use the model rules as a guideline for developing acceptable State rules.

(c) *I/M Corrections.* Section 182(a)(2)(B) requires States that contain marginal ozone nonattainment areas with existing I/M programs, or that were required to include I/M programs in their SIP's by the pre-1990 Act, to submit to EPA immediately upon (1990 CAAA) enactment of any revisions necessary to provide for a program no less stringent than that required prior to enactment or committed to in the SIP in effect at enactment, whichever is more stringent. The section also requires EPA to review, revise, update, and republish in the **Federal Register** within 1 year of enactment, the guidance for I/M programs required by the Act, taking into consideration the Administrator's investigations and audits of such programs. In short, ozone nonattainment areas must maintain existing I/M programs and must make corrections to those programs to meet existing I/M policy; when updated policy is published, these areas must submit revisions to address any new guidance.

More specifically, section 182(a)(2)(B) requires States to meet the basic I/M performance standard that has been in effect since 1977. This standard is based on a "model" program design consisting of a centralized program that annually tests tailpipe emissions on all light-duty vehicles, using emission standards for 1981 and later model vehicles of 1.2 percent CO and 220 parts per million hydrocarbons (HC) and a 20 percent stringency for pre-1981 vehicles. A compliance rate of 100 percent and a waiver rate of 0 percent are assumed. States must demonstrate an emission reduction for the I/M program included in the SIP that is at least as great as that produced by the "model" basic program (or the program already included in the SIP, whichever is greater), using the most current available version of EPA's mobile source emission model. The I/M programs are required in the urbanized portions, as defined by the Bureau of the Census in 1980, of the marginal nonattainment area.

The EPA expects to issue the policy for I/M programs in the near future. When published, the policy will state the date when such programs are to be implemented. The EPA intends that the policy will allow all areas ample time after publication of the policy to adopt and submit basic or enhanced I/M programs and/or I/M corrections as referenced in section 182(a)(2)(B). States that have both basic and enhanced I/M programs may opt to implement enhanced programs in all affected urbanized areas. States which are only required to implement basic programs (under section 182(a)(2)(B) or the requirements for moderate ozone nonattainment areas and certain CO nonattainment areas, as discussed later in this notice) must submit SIP revisions for I/M programs addressing any revised policy. The guidance will address the elements of the SIP revision.

As mandated by section 202(m), the Administrator will promulgate regulations requiring manufacturers to install diagnostic systems on all new light-duty vehicles and light-duty trucks. The purpose of these systems is to identify and track emission-related systems deterioration or malfunction. According to section 202(m)(3), within 2 years of EPA's promulgating regulations requiring States to do so, all States with I/M programs must amend their SIP to provide for inspection of these onboard diagnostics systems. The EPA will issue revised I/M guidance which addresses onboard diagnostic inspections.

(d) *Periodic inventory.* Section 182(a)(3)(A) requires the States to submit periodic inventories starting the third year after submission of the base year inventory required by section 182(a)(1) (i.e., November 15, 1995) and every 3 years thereafter until the area is redesignated to attainment. However, complete actual inventories will be used to demonstrate whether or not the milestone required in section 182(g) has

been achieved. These inventories must be submitted within the prescribed period following the milestone date. The EPA is recommending that States synchronize their schedules for developing the periodic inventories so that the second periodic inventory (the third inventory overall), which would be due in 1998, will actually be submitted early in 1997 (by February 13, 1997) and will address emissions in 1996. In this way, the milestone demonstration (required under section 182(g)) that is due for serious and above areas in early 1997 can be based on the periodic inventory developed by the States. Future periodic inventories then would also coincide with the subsequent milestone demonstrations rather than the later dates associated with the periodic inventory requirement. The EPA will be issuing guidance on the synchronization of the periodic inventory with the milestone compliance deadlines in the near future.

The first periodic inventory due no later than November 15, 1995 covers actual emissions for the 1993 time period. The States will be involved in significant planning activities during this time. The EPA will, in the future, provide guidance on how to integrate these emission inventory and planning activities. There could be a significant resource and effort savings effect to States that elect to accelerate the second periodic inventory so that it can also be used to demonstrate milestone attainment. Otherwise at least one additional emission inventory would be required by 1998. More information on these assessments and periodic inventories will be provided to States in guidance on emission tracking to be completed shortly.

The periodic inventory shall meet the same requirements as the base year inventory. This periodic inventory shall be based on actual emissions and shall cover VOC, NO_x, and CO emission sources. Like the base year inventory, the periodic inventory shall be based on peak ozone season temperatures, industrial activity, etc. Additional guidance is available in the "Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I," May 1991.

By meeting the specific periodic inventory requirements discussed above, States will also satisfy the general periodic inventory requirements of section 172(c)(3).

(e) *Emissions statements.* Section 182(a)(3)(B) requires States to submit a SIP revision by November 15, 1992 that requires the submission of annual statements from owners or operators of each stationary source of NO_x and VOC showing the actual emissions of NO_X or VOC. The first statements are due by November 15, 1993, and should show emissions during calendar year 1992.

Each statement shall contain a certification that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. The EPA will issue additional guidance on the form and content of the statement.

States may waive the requirement for emissions statements for classes or categories of sources that emit less than 25 tons per year of NO_x or VOC if the class or category is included in the base year and periodic inventories, and emissions are calculated using emission factors established by EPA (such as those found in EPA publication AP-42) or other methods acceptable to EPA.

The EPA believes that the emission statement can aid in the development of the periodic emission inventory, serve as the AIRS Facility Subsystem (AFS) update, and track progress for point sources greater than 25 tons/year.

(f) *NSR.* The statutory NSR permit requirements for marginal ozone nonattainment areas are generally contained in the Act under section 172(c)(5), revised section 173, and in newly enacted subpart 2 of part D. These are the minimum requirements that States must include in an approvable implementation plan. A discussion of general NSR permit requirements is contained in section III.G. of this preamble. Section 182(a)(2)(C) requires that States adopt and submit revised NSR regulations for all ozone nonattainiment areas classified as marginal or above which incorporate the new provisions of the 1990 CAA, and correct existing regulations to incorporate all NSR provisions in effect immediately before the date of enactment.

(1) *Major stationary source.* For ozone nonattainment areas classified as marginal areas, the term "major stationary source" means any stationary source that emits or has the potential to emit 100 tons per year or more (see discussion in section III.A.9). Lower size thresholds apply to other area classifications and the VOC, to ozone transport areas.

(2) *Offset ratios.* For the purpose of satisfying the emissions offset reduction requirements of section 173(a)(1)(A), the emissions offset ratio is the ratio of total actual emissions reductions to total allowable emissions increases of such pollutant from the new source. For ozone nonattainment areas classified as marginal areas, the emissions offset ratio is at least 1.1 to 1. As per section 173(c)(1), the new or modified source may obtain offsets from the same source or other sources in the same nonattainment area, and in some cases from another nonattainment area if the other area has equal or higher nonattainiment classification, and the emissions from the other area contribute to a violation of the ambient standard in the area where the new or modified source is locating. In addition, prior to permit issuance under section 173, the nonattainiment plan provisions must demonstrate reasonable further progress (RFP) by requiring sufficient emission reductions to offset emissions increases from new or modified small (nonmajor) sources in the area.

(g) *Rural transport areas.* If an area meets the requirements discussed below and is treated by the Administrator as a rural transport area (RTA) as determined using procedures consistent with the EPA guidance "Criteria for Assessing the Role of Transport of Ozone/Precursors in Ozone Nonattainment Areas," the SIP for such area need only meet those section 182 plan and submission requirements, including NSR provisions, that apply to marginal areas. It should be noted that the NSR requirements applicable in ozone transport regions (e.g., offsets at a 1:1.15 ratio and major VOC source threshold of 50 tons per year) supersede the marginal requirements for RTA's. If, however, a State's request that an ozone nonattainment area be treated as an RTA is denied, the area will be classified according to its design value and all section 182 requirements for that classification will apply.

According to section 182(h), the Administrator's decision to treat an ozone nonattainment area as an RTA is discretionary. This discretion may be exercised only if the Administrator finds that the area neither borders on nor contains any portion of an MSA or CMSA and if VOC (and if EPA deems them relevant, NOx) emissions emanating from the area do not significantly contribute to ozone concentrations measured within or outside of the area. This showing depends upon whether ozone concentrations within or downwind of the area results from "overwhelming transport" of ozone or precursors from sources external to the area. Guidance on determination of "overwhelming transport" is found in "Criteria for Assessing the Role of Transport of Ozone/Precursors in Ozone Nonattainment Areas." A finding of no significant contribution will be based on analysis submitted to EPA by the concerned State in advance of the

required SIP. These results must reasonably implicate an upwind area as the source of the measured ozone concentrations. Also, the area must demonstrate that its emissions are not causing a nonattainment problem in its downwind area.

Any RTA that fails to meet the marginal area attainment deadlines is subject to bump-up to the appropriate higher nonattainment status (discussed at section III.A.2.(i) of this document). However, if the area still qualifies as an RTA, although the area will be subject to the attainment date for the higher classification, it remains subject only to the submittal and implementation requirements for marginal areas. If it is found that the area no longer qualifies as an RTA, the area will be treated as the higher classified area for SIP requirements as well.

State plans for RTA's located within the interstate ozone transport regions established under section 184 must meet applicable provisions required by section 184 (b) and (c). In particular, provisions of section 184(b)(1)(B) requiring implementation of RACT with respect to all sources of VOC covered by a CTG, and the section 184(b)(2) requirements concerning implementation of vehicle refueling controls identified by the Administrator, must be implemented in a State plan covering an RTA. In addition, an RTA SIP must be revised to include whatever additional control measures are recommended under section 183(c) and whatever best available air quality monitoring and modeling techniques are identified under section 184(d). These plan revisions must be approved by the Administrator.

(h) *Reformulated gasoline "opt-in."* The Governor of any State with a marginal, moderate, serious, or severe ozone nonattainment area may apply to the Administrator to opt-in to the reformulated gasoline program established under section 211(k). Refer to section III.A.4.(o) for more discussion of the program requirements.

(i) *Bump-up provisions.* Although the primary focus of this General Preamble is on the criteria EPA will use in determining the adequacy of the many SIP submittals that are required under the 1990 CAAA, it is useful to describe the amended Act provisions regarding failures to attain or to make emission reduction milestones. The EPA believes that certain areas (in particular, marginal ozone areas) face some important issues related to the consequences of failures to attain by the applicable deadlines. The following discussion describes the basic requirements and procedures for determining and responding to failures to attain to make adequate progress and the specific implications for marginal ozone areas.

(1) *Failure to attain.* Section 181(b)(2) of the Act requires a marginal, moderate, or serious ozone nonattainment area to be reclassified to the higher of the next higher classification, or the classification associated with the area's design value at the time EPA determines that the area failed to meet the standard by the applicable attainment date. The EPA uses the term "bump-up" to describe this reclassification process. An area cannot be bumped up to the extreme classification under this provision.

The EPA must determine within 6 months after the attainment date whether an area has attained. In making this determination, EPA will use the most recently available, quality-assured air quality data covering the 3-year period up to and including the attainment date. For ozone, the average number of exceedances per year shall be used to determine whether the area has attained. For marginal ozone nonattainment areas, this means that the air quality data for the period 1991 to 1993 will be used to determine whether the area has attained by November 15, 1993. (Areas that show attainment prior to this period may be redesignated prior to November 1993 in accordance with section 107(d)(3).)

As provided in section 181(a)(5) for ozone areas, up to two 1-year extensions of the attainment date can be granted to the State if the State has met all applicable requirements, and if no more than one exceedance of the level of the NAAQS has occurred at any monitor in the year in which the area was to have attained. Because EPA will be reviewing available data to determine the attainment status, the State should submit its application for this extension as soon as the necessary air quality data are available.

If EPA determines that an area has not attained, EPA will publish a notice, and the area will be reclassified by operation of law. The Administrator may adjust the submittal dates for the requirements of the "new" classification (to "assure consistency among the required submissions" (section 182(i), but the attainment date will be the date originally specified for that classification in Table 1 of section 181(a). For example, a marginal area has an attainment date of November 15, 1993. If the area does not attain by then, the new attainment date will be November 15, 1996 (the "originial" attainment date for moderate areas at enactment) or, if its air quality would make it a higher classification, the later date associated with that classification.

States should be aware that if an area voluntarily bumps up late in its attainment period, the discretion granted by section 182(b)(1) for the Administrator to adjust schedules for implementing SIP requirements associated with the next higher classification may be seriously limited. In other words, areas that wait until the end of their attainment period before requesting to bump up after already missing implementation requirements, falling behind on their 15 percent RFP (if applicable), and experiencing continuing deterioration in air quality, are likely to have insufficient time for implementing the more stringent requirements of the next higher classification. The EPA, therefore, encourages any area that believes that it will be unable to attain by its applicable deadline, to voluntarily bump-up early enough to maximize the available time for implementing the requirements of the next higher nonattainment level. Early bump-up will help areas avoid sanctions and/or FIP implementation that could result from failure to meet SIP submittal or implementation requirements.

Although section 182(a) specifically excludes marginal areas from the contingency requirements of section 172(c)(9), marginal areas should carefully consider the benefits of contingent or advanced adoption of certain measures that could be implemented quickly should the area not attain by the 1993 date. If a marginal area fails to attain by November 15, 1993, it will become subject to the requirements for moderate areas, in particular the I/M, RACT, and 15 percent reductions requirements. These requirements would have to be met and the standard achieved by November 15, 1996, an extremely tight timeframe for these accomplishments if no prior planning and adoption actions have occurred. If the RACT rules cannot be developed and implemented and the 15 percent requirement cannot be met by November 15, 1996, the area could miss the attainment date for moderate areas and would face the even more stringent requirements for serious areas.

(2) *Special issues for marginal areas.* The retention of the moderate area attainment date for a marginal area that has been bumped up raises some important issues for marginal areas that will have difficulty attaining by the November 15, 1993 deadline. These issues become even more significant if the marginal area applies for and receives one or two of the 1-year

attainment date extensions (section 181(a)(5)).

The EPA believes that marginal areas should carefully consider the consequences of not attaining by November 15, 1993, and should take certain preliminary steps to minimize the potential of being subject to possibly unnecessary major control and planning actions. For example, according to the statutory time frames, it could be the middle of 1994 before a marginal area is bumped up to the moderate classification. If an area had not commenced any early planning and rule development activities, the area would have only 2½ years to meet all of the requirements for moderate areas (e.g., RACT rules, Stage II, 15 percent emission reduction requirement, etc.). While just making the submittals for these requirements would be difficult, it could be even more difficult for the State to implement the measures early enough to reduce emissions and have a significant impact on ozone levels by the end of 1996. As a result, the area could face the possibility of missing the 1996 attainment date for moderate areas and be bumped up again, this time to the serious classification. If the marginal area had earlier received one or two extensions (under section 181(a)(5)), the difficulty of adopting and implementing required measures before the attainment date for moderate areas would be even greater.

Given this potentially difficult situation for marginal areas, EPA strongly urges States with marginal areas that may be unable to attain by the 1993 deadline, to initiate preliminary planning and rule development activities well before that date. Furthermore, EPA proposes to require that States that request attainment date extensions for marginal areas (under section 181(a)(5)) must show in their requests that they have made a significant effort to initiate planning activities and rule development associated with the moderate classification, and that they have taken steps to begin any necessary monitoring activities to develop required information (such as ambient VOC and NO_x data) for the modeling analysis that will be required for the moderate classification. For certain control measures which would be required under the moderate classification, such as I/M, States should show that they have taken any necessary preliminary steps to ensure that the controls could be adopted and implemented quickly. For example, States should consider whether their legislative and regulatory procedures would enable these controls to be fully implemented and to achieve needed emission reductions before the attainment date for moderate areas.

Finally, EPA is considering requiring States that request attainment date extensions under section 181(a)(5) to submit their air quality data on an accelerated time schedule. This early reporting of data could help alert the State and EPA to the need to quickly begin developing and adopting the additional measures for the moderate classification, if the data in the "extension year" reveal more than one exceedance of the national standard.

(3) *Basic I/M.* In the event that a marginal ozone nonattainment area fails to attain the ozone standard by the applicable deadline or extended deadline, and is reclassified to moderate, a basic I/M program must be implemented, regardless of whether the area had an I/M program in place. The EPA intends to exercise its authority under section 182(i) to require such areas to submit a SIP meeting the basic I/M requirements within one year of the reclassification.

3. *Moderate Areas*

Moderate areas are required to meet all marginal area requirements, unless otherwise noted, as well as the following additional requirements.

(a) *Requirement for 15 percent reduction in emissions.* Section 182(b)(1) requires all ozone nonattainment areas classified moderate and above to submit by November 15, 1993, a plan revision that reflects an actual reduction in typical ozone season weekday VOC emissions of at least 15 percent during the first 6 years after enactment. The 15 percent emission reductions must be calculated from the 1990 baseline of actual emissions (adjusted per section 182(b)(1)(B)) and must account for any net growth in emission (i.e., net of growth). While section 182(b)(1) requires a reduction in VOC emissions of 15 percent, the 1990 CAAA do not require any specific numerical percentage of NO_x emission reductions prior to 1996.

The EPA's focus on typical ozone season, weekday VOC emissions—an interpretation of the requirement in section 182(b)(1)(B) for a 15 percent reduction of actual emissions during the "calendar year" of enactment—is consistent with prior EPA guidance. This guidance stems from the fact that the ozone NAAQS is an hourly standard that is generally violated during ozone-season weekdays when conditions are conducive for ozone formation. These ozone seasons are typically the summer months.

A 15 percent reduction is generally appropriate for moderate areas to attain the ozone NAAQS within the applicable timeframe. In some cases, modeling will show that less than a 15 percent reduction would be required for attainment of the standard. However, the 15 percent rate of progress requirement is intended to be the base program that all moderate and above areas must meet. This base program is necessary to ensure actual progress toward attainment in the face of uncertainties inherent with SIP planning, such as emission inventories, modeling and projection of expected control measures. Also, this base program would provide greater assurance of maintenance of the standard after attainment.

In those cases where modeling shows that reductions greater than 15 percent are necessary to attain the standard, the area will be required to achieve those additional emission reductions.

Section 182(b)(1) (B) and (D) define baseline emissions as "the total amount of actual VOC or NO_x emissions from all anthropogenic sources in the area during the calendar year of enactment," excluding the emissions that would be eliminated by FMVCP regulations promulgated by January 1, 1990, and RVP regulations promulgated by November 15, 1990, or required to be promulgated under section 211(h), which requires RVP no greater than 9.0 pounds per square inch (psi) during the high ozone season. The base year emission inventory for calendar year 1990 must be adjusted to remove the aforementioned emissions, as well as biogenic emissions and any emissions from sources outside the designated nonattainment boundary (e.g., within the 25-mile zone around the nonattainment boundaries if included in the emissions inventory). The adjusted base year inventory (i.e., baseline emissions) must contain only actual emissions occurring in the base year, 1990, within the designated nonattainment area boundaries. The baseline emissions should not include pre-enactment banked emission credits since they were not actual emissions during the calendar year of enactment.

(1) *Adjusted base year inventory calculation.* The adjusted base year inventory should be calculated in two steps. The first step consists of developing a 1990 inventory of non-mobile anthropogenic VOC emissions. The second step consists of determining the mobile portion of the inventory after the FMVCP and RVP reduction program (promulgated by the data of enactment or required by section 211(h)) are factored out.

The determination of the baseline will require the use of MOBILE4.1 to model

the effects of fleet turnover and RVP changes. For 1996, the baseline will be determined by applying the 1990 VMT to a hypothetical emission factor for 1996.

The hypothetical emission factor for the 1990 baseline in 1996 is the 1996 emission factor determined by running MOBILE4.1 using 1996 as the evaluation year and the same input parameters used to describe the FMVCP and SIP requirements in 1990, with the addition of RVP at 9 psi (or appropriate level for area). Multiplying this emission factor by the 1990 VMT results in 1990 motor vehicle baseline emissions which exclude the emissions reductions that would be eliminated in 1996 as a result of fleet turnover under the pre-enactment FMVCP and the section 211(h) RVP requirements. The 1990 motor vehicle baseline emissions for 1996 are added to the 1990 inventory of non-motor vehicle anthropogenic VOC emissions to calculate the 1990 total baseline emissions for 1996. This number is the adjusted base year inventory needed to calculate the amount of emissions reductions needed by 1996, as well as the target level of emissions in 1996.

(2) *Calculation of target level of emissions.* After the adjusted base year inventory is developed, the 1996 target level of emissions would be calculated by multiplying the adjusted base year inventory by 0.85 and then subtracting from this product the emission reductions expected to result by 1996 from corrections to RACT rules and I/M programs.

Once the 1996 target level of emissions is calculated, States must develop whatever control strategies are needed to meet that target. Some air planning agencies may be used to thinking in terms of the emissions reduction required relative to a current control strategy projection (particularly for stationary sources), rather than a target level of emissions. Projections of 1996 emissions would be used to calculate the required emissions reduction expressed on such a basis by simply taking the difference between the 1996 projection inventory (without controls applied) and the 1996 target level of emissions. However, States that choose this approach should be aware that the 1996 target level is dependent only on the 1990 emissions inventory, whereas the calculation of an emission reduction required relative to the current control strategy projection depends on the accuracy of the 1996 projection, which in turn depends on the estimate of future growth in activities. The assessment of whether an area has met the RFP requirement in 1996 will be based on whether the area is at or below the 1996 target level of emissions, and not whether the area has achieved a certain actual reduction relative to having maintained the current control strategy. The following formulas describe how to calculate the 1996 target level of emissions.

Formulas:

BE_{96} = 1990 Baseline Emissions
= 1990 Nonmotor vehicle emissions
+ (1990 VMT × hypothetical 1996 MOBILE4.1 emission factor)

TL_{96} = 1996 target level of emissions

Corrections = RACT rules and I/M program corrections

$TL_{96} = BE_{96} \times (0.85) -$ corrections

(3) *Emission factor adjustments.* Emission factors, as well as inventory calculation methodologies, are continually being improved. If emission factors or methodologies change significantly, EPA may advise the States to correct the base year emission inventory to reflect such changes. If significant changes occur in emission factors or methodologies between enactment and November 15, 1993 (due date for 15 percent demonstration), EPA may require States to make corrections to the base year emission inventory, as well as to the adjusted baseline and the 1996 target level of emissions. If, however, changes occur after the 15 percent demonstration is submitted but before November 15, 1996, then the States would not have to make corrections for purposes of reconciling attainment of the 15 percent milestone. Serious areas should also refer to the discussion on the rate of progress demonstration (section III.A.4(f)) for guidance on changes that might occur before November 15, 1994, and the impact on the post 6-year 3 percent rate of progress demonstration.

(4) *Creditable emission reductions.* In developing the 15 percent reduction control strategy required to be submitted as a SIP revision, States must keep in mind that the 1990 CAAA explicitly disallowed certain reductions from counting toward fulfilling the 15 percent reduction in emissions requirement.

All emission reductions from State or Federal programs are creditable toward the 15 percent progress requirement except for the following:

1. The FMVCP tailpipe or evaporative standards promulgated prior to 1990.

2. Federal regulations on RVP promulgated by November 15, 1990, or required under section 211(h).

3. State regulations required under section 182(a)(2)(A) submitted to correct deficiencies in existing VOC RACT regulations or previously required RACT rules.

4. State regulations required under section 182(a)(2)(B) submitted to correct deficiencies in existing I/M programs or previously required I/M programs.

However, all real/actual reductions, regardless of origin, will contribute to attainment even if they are not creditable toward the 15 percent requirement. While emission reductions resulting from required corrections to VOC RACT rules or I/M programs are not creditable toward the required 15 percent reduction, any future reductions resulting from measures not associated with the required corrections would be creditable. For example, reductions are creditable where the State revises the emission limit or changes the applicability threshold beyond the level required previously for the area in EPA guidance, and these modifications result in further emissions reductions. Other examples of creditable reductions include applying regulations to the new portions of a pre-enactment nonattainment area not previously subject to the regulations, and adopting TCM's listed in section 108(f) that are not already in the SIP. Reductions achieved through rules adopted pursuant to any new CTG are creditable only to the extent that the reductions were not required by a SIP or FIP developed under the pre-amended Act. For example, a non-CTG rule in a SIP, or required to be included in such a SIP prior to enactment, required an 81 percent reduction in VOC emissions. The SIP is then revised to include a post-enactment CTG which recommends a 90 percent reduction in VOC emissions. To the extent that a specific source achieves the 90 percent reduction, only 9 percent would be creditable. In addition, if a State was required to adopt a RACT rule for a particular source under the pre-amended Act but failed to do so, adoption of a rule for that source would be considered part of the RACT fix-ups. Therefore, any reductions achieved by such a rule would not be creditable.

Pre-enactment banked emissions reductions credits are not creditable toward the 15 percent progress requirement. However, for purposes of equity, EPA encourages States to allow sources to use such banked emissions credits for offsets and netting. When States use such banked credits for offsets and netting to the extent otherwise creditable under the part D NSR regulations, these pre-enactment emissions credits must be treated as growth. Consequently, this "growth" must be accounted for, as is the case with all other anticipated growth, in order to ensure that it does not interfere with the 15 percent rate of progress

requirement (which is "net" of growth). In addition, when such growth emissions are used as offsets, they must be applied in accordance with the offset ratio prescribed for the area of concern (e.g., 1.3 to 1 for severe areas, etc.). All pre-enactment banked credits must be included in the nonattainment areas attainment demonstration for ozone to the extent that the State expects that such credits will be used for offsets or netting prior to attainment of the ambient standards. Credits used after that date will need to be consistent with the area's plan for maintenance of the ambient standard. The EPA expects to provide additional clarification on the use of banked emissions in its NSR regulatory update package.

States can only count emissions reductions toward the 15 percent requirement if such emissions meet the creditability and reduction requirements. All creditable emission reductions must be real, permanent, and enforceable. States must keep careful records of all emissions reductions to ensure that the same reductions are not "double-counted" or, more simply, used more than one time (i.e., reductions cannot be used for offsets and to meet the 15 percent rate of progress requirement).

Many states with pre-existing nonattainment areas have already adopted rules defining RACT for most of the larger sources, including non-CTG categories. In such cases, there is considerable concern about what additional measures are needed to meet the 15 percent rate of progress requirement.

One method of achieving creditable reductions from stationary sources in such areas is to improve implementation of rules for existing regulations. This is referred to as "rule effectiveness" improvement. These improvements are subject to the same creditability constraints as are the other emissions reductions. For example, rule effectiveness improvements resulting from corrections to the existing VOC RACT rules made pursuant to section 182(a) are not creditable. Rule effectiveness improvements must reflect real emissions reductions resulting from specific implementation program improvements. Actual emissions reductions must result from improving rule effectiveness; simply improving the methods for calculating rule effectiveness is not creditable.

Rule effectiveness improvements resulting in emissions reductions must be adequately documented before being credited toward meeting the rate of progress requirement. Two methods exist for adequately documenting rule effectiveness improvements. First, a rule effectiveness test meeting EPA's protocol requirements can be performed before and after the improvement is implemented (for further information refer to the March 31, 1988 memorandum from John S. Seitz, Director Stationary Source Compliance Division, to Regional Air Division Directors, regarding "Implementation of Rule Effectiveness Studies"). For example, if rule effectiveness increases from 50 to 75 percent, then the emissions reductions associated with this improvement would be creditable. Second, if the default value of 80 percent is assumed before the improvement and an EPA protocol test is performed after the improvement, only the amount greater than 80 percent is creditable. Thus, if the EPA Protocol test indicates an 85 percent rule effectiveness, then the increase in emissions reductions associated with the improvement from 80 to 85 percent would be creditable toward meeting the VOC progress requirement. If the EPA protocol test indicates that the 80 percent default was incorrect and the rule effectiveness was actually less than 80 percent, then the emissions inventory and the 15 percent requirement must be recalculated.

The CAAA require that the 15 percent emissions reductions come from the baseline emissions. The baseline emissions are defined to be all emissions "in the area," (less required adjustments) which EPA interprets to mean emissions emanating from the designated nonattainment area. All emissions reductions must therefore come from within the designated nonattainment area. Of course, emissions reduction strategies applied to sources just outside the nonattainment area may have a beneficial effect on the nonattainment problem within the designated area.

After the control strategy is developed, the regulations needed to implement the control strategy must be developed and adopted by the State. The control strategy along with the associated regulations must be submitted to EPA by November 15, 1993. The adjusted base year inventory and the 1996 projection inventory (without control measure reduction applied) should be submitted no later than November 15, 1992.

States should be aware of the implications of late implementation of control measures. Section 182(b)(1)(A) requires that the control strategy contain provisions for such specific annual reductions as necessary to attain the standard by the applicable attainment date. If the control strategy effort for a moderate area shows that an amount greater than 15 percent of creditable reductions when combined with the noncreditable reductions is needed to attain the ozone NAAQS by November 15, 1996, the State should plan on achieving the emissions reductions as early as possible. For that matter, any moderate area should plan on implementing control measures as expeditiously as practicable, since EPA will look at air quality data for 1994–1996 to determine if a moderate area has attained the ozone NAAQS. Section 182(b)(2) requires EPA to determine within 6 months after an applicable attainment date whether the area attained the standard by that date, which will dictate the use of the most recent 3 years of air quality data prior to that date. By delaying the implementation of measures until 1996, and thus delaying the resulting emissions reductions, moderate areas may be reclassified as serious areas because emissions reductions will not be achieved early enough to affect the air quality and to attain the ozone NAAQS. In fact, any regulations required to meet the greater than 15 percent rate of progress requirement to attain the ozone NAAQS must be submitted with the control strategy by November 15, 1993, per the requirement making specific annual VOC and NO_x reductions needed to attain the NAAQS due by November 15, 1993.

A moderate nonattainment area can achieve less than the 15 percent required reductions under certain rather restrictive circumstances. The State must demonstrate that the area has an NSR program equivalent to the requirements in extreme areas (section 182(e)), except that "major source" must include any source that emits, or has the potential to emit, 5 tons/year. Additionally, all major sources (down to 5 tons per year) in the area must be required to have RACT-level controls. The plan must also include all measures that can be feasibly implemented in the area, in light of technological achievability. The term "technological achievability" refers to measures that can be successfully implemented in actual practice, not measures that merely appear feasible in a research setting, for example. The EPA will consider on an area-by-area basis what these measures may be, with no presumption beyond that specifically given in the last sentence of section 182(b)(1)(A)(ii), which states to qualify for a less than 15 percent reduction, the State must at least demonstrate that the SIP for the area includes all measures achieved in practice by sources in the same source category in nonattainment

areas of the next higher classification. The term "achieved in practice" is intended to include those measures that have been successfully implemented in one or more nonattainment area of the next higher category. The waiver for the 15 percent progress requirement does not, under section 182(e), apply to nonattainment areas classified as extreme.

All multi-State ozone nonattainment areas should refer to section (III.A.9) for further instructions on coordinating SIP revisions and on developing the attainment demonstration.

By meeting the specific 15 percent reduction requirement discussed above, the State will also satisfy the general RFP requirements of section 172(c)(2) for the time period discussed.

(b) *Attainment demonstration.* Section 182(b)(1)(A) requires a SIP for a moderate ozone nonattainment area to provide for specific annual reductions in VOC and NO_x emissions "as necessary to attain the national primary ambient air quality standard for ozone." This requirement can be met through applying EPA-approved modeling techiniques described in the current version of EPA's "Guideline on Air Quality Models (Revised)." The Urban Airshed Model, a photochemical grid model, is recommended for modeling applications involving entire urban areas. In addition, for moderate areas contained solely in one State, the empirical model, city-specific Empirical Kinetic Modeling Approach (EKMA), may be an acceptable modeling technique. The State should consult with EPA prior to selection of a modeling technique. If EKMA is used, the attainment demonstration is due by November 1993.

In other cases, a State might choose to utilize a photochemical grid model instead of EKMA. Grid modeling will generally provide a better tool for decision makers and the necessary additional time may, therefore, be justified. In such cases, States should consult with EPA on a case-by-case basis on an acceptable approach to meeting the section 182(b)(1)(A) requirement through an interim SIP submittal by November 1993 and a completed attainment demonstration by November 1994. The interim submittal would include, at a minimum, evidence that grid modeling is well under way and a commitment, with schedule, to complete the modeling and submit it as a SIP revision by November 1994. The completed attainment demonstration would include any additional controls needed for attainment. Separate attainment demonstration requirements apply to multi-State moderate areas, as described in section III.A.9.

When projecting motor vehicle emissions for the attainment demonstration, States should use the same procedures as given in EPA VMT forecasting and tracking guidance for moderate CO nonattainment areas. The use of this guidance is limited to projecting motor vehicle emissions, and the information on the reporting requirements for moderate CO areas is not applicable.

The EPA realizes that in some cases certain demonstrations will be complicated by the impact of ozone and precursor transport, and by the RFP requirements and attainment deadlines that apply to areas of different classifications. For example, a moderate area located within the transport region is still subject to the 6-year attainment deadline and to the section 182(b)(2)(A) requirement to provide annual emissions reductions in its plan to attain by the deadline. However, this area is (at least, presumptively) being affected by transport from another area(s) and is, as well, possibly affecting other areas itself. If the "other" area that are affecting air quality levels in this moderate area are classified as serious or severe, those areas will be reducing their emissions over a longer timeframe in order to attain the standard. That is, these "other" areas could still be having significant effects on the moderate area at the time when the moderate area must demonstrate attainment. This same phenomenon can also arise in areas that may be impacted by transport but are not yet in a transport region established under section 176A or section 184.

The EPA believes that these situations are somewhat analogous to the situations addressed in section 182(h) for rural transport areas and in section 182(j) for multi-State ozone nonattainment areas. Section 182(h) recognizes that the ozone problem in a rural transport area is almost entirely attributable to emissions in an upwind area. Therefore, the only requirements for the rural area are the minimal requirements specified for marginal areas, the assumption being that the controls in the upwind area will solve the problem in the rural transport area as well. In a similar way, section 182(j)(2) for multi-State nonattainment areas and section 179B for international areas recognize that an area in one State may not be able to demonstrate attainmemt if other States or area(s) in another country do not meet similar requirements under section 182. In such cases, even though the area would not be able to demonstrate attainment, the sanction provisions of section 179 shall not apply.

In the above cases, there is a recognition in the CAAA that at some point, an area being affected by emissions from another area(s) may not be able to achieve sufficient emissions reductions on its own to demonstrate attainment. In these cases the area is relieved from certain requirements in the CAAA which would require additional controls. There is no explicit recognition in the CAAA of this occurring in other situations. The EPA believes, however, that other similar situations (as discussed above) are likely to arise, and that a reasonable approach is needed to ensure equitable treatment of the areas and expeditious attainment of the standard.

In particular, there are two situations in which an area might be subject to additional emissions reductions requirements related to the demonstration of attainment. In the first situation, an area might be receiving such high levels of transport that even if it reduced its emissions dramatically (e.g., totally eliminated its own emissions), the incoming ozone and precursors would be high enough to continue to cause violations of the standard beyond the applicable attainment date. In the second situation, the area might be able to achieve additional reductions (beyond those already required under section 182). Even where those additional reductions could be achieved to demonstrate attainment, the question arises whether it is equitable to require those reductions or to allow more time for the reductions in the "upwind" area to take place. As described above, however, the statute provides no express relief for these situations. The area does have the option of requesting to be classified to the next higher classification. Thus, where the demonstration of attainment is complicated by transport between two areas of different classifications, the State is still responsible for developing and submitting demonstrations which show that the standard will be attained by the applicable date. In other words, the State must provide for sufficient emissions reductions on a schedule that will ensure attainment in its moderate area, for example, within 6 years after enactment. The EPA believes that the wording in section 182(b)(1)(A)(i) requires the State to develop a plan providing such emissions reductions.

(c) *Contingency measures.* The general requirements for nonattainment plans under section 172(c)(9) specify that each plan must contain additional measures that will take effect without

further action by the State or EPA if an area either fails to make RFP or to attain the standard by the applicable date. These provisions do not apply to marginal ozone nonattainment areas (section 182(a)). This important issue for marginal areas is discussed further under the section on bump-ups (reclassifications upon failure to attain the standard). Additional contingency provisions are included in section 182(c)(9) for serious ozone nonattainment areas and in section 187(a)(3) for CO nonattainment areas with design values above 12.7 ppm. These latter provisions are similar to the section 172(c)(9) requirements except that the focus in section 182 (ozone areas) is on meeting emissions reductions milestones (section 182(g)), and the focus in section 187 (CO areas) is on consistency between previously projected and actual or subsequently projected VMT levels, as well as failure to attain by the required deadline. These contingency measures for SIP's, as required under the CAAA, supersede the contingency requirements contained in the 1982 ozone and CO SIP guidance, 46 FR 7182 (January 21, 1981).

Ozone areas classified as moderate or above must include in their submittals, which are due by November 15, 1993 as set by EPA under section 172(b), contingency measures to be implemented if RFP is not achieved or if the standard is not attained by the applicable date. This contingency submittal date is appropriate since States must demonstrate attainment of the 15 percent milestone at this time. The 1990 CAAA do not specify how many contingency measures are needed or the magnitude of emissions reductions that must be provided by these measures. Assuming that all of the State measures may fail to produce their expected reductions, one interpretation of the CAAA is that a State would have to adopt sufficient contingency measures in this November 15, 1993 plan to make up for this entire shortfall. In other words, the State would have to adopt "double" the measures needed to satisfy the applicable emissions reduction requirements. The EPA believes that this would be an unreasonable requirement given the difficulty many States will already have in identifying and adopting sufficient measures to meet RFP and other requirements.

The EPA believes that the contingency measures should, at a minimum, ensure that an appropriate level of emissions reduction progress continues to be made if attainment of RFP is not achieved and additional planning by the State is needed. Therefore, EPA will interpret the Act to require States with moderate and above ozone nonattainment areas to include sufficient contingency measures in the November 1993 submittal so that, upon implementation of such measures, additional [2] emissions reductions of up to 3 percent of the emissions in the adjusted base year inventory [3] (or such lesser percentage that will cure the identified failure) would be achieved in the year following the year in which the failure has been identified. This "additional" reduction would ensure that progress toward attainment occurs at a rate similar to that specified under the RFP requirements for moderate areas (i.e., 3 percent per year), and that the State will achieve these reductions while conducting additional control measure development and implementation as necessary to correct the shortfall in emissions reductions or to adopt newly required measures resulting from the bump-up to a higher classification. Under this approach, the State would have 1 year to modify its SIP and take other corrective action needed to ensure that milestones are achieved and that RFP toward attainment continues. However, if a State can show that its SIP can be revised to correct any possible failure in less than 1 year, then proportionally less than 3 percent may be considered. In the case of moderate areas, contingency measures would be needed when the area fails to attain the standard by the attainment date (or, for serious and above areas, if the area fails to meet the rate-of-progress requirements for any milestone other than one falling on an attainment year, e.g., the 15 percent required by the end of 1996). If the area fails to attain, it would be bumped up to the serious classification [4] and become subject to the requirements that apply to that classification. Therefore, the contingency measures would be implemented while the State developed and adopted the new measures associated with the serious classification.

One way that contingency measures could meet this requirement is by requiring the early implementation of measures scheduled for implementation at a later date in the SIP. For example, a State could include as a contingency measure the requirements that measures which would take place in later years if the area met its RFP target or attainment deadline, would take effect earlier if the area did not meet its RFP target or attainment deadline. Within 1 year of the triggering of a contingency requiring the early implementation of control measures, the State must submit a revision to the SIP containing whatever additional measures will be needed to backfill the SIP with replacement measures to cure any eventual shortfall that would occur as the result of the early use of the contingency measure.

If EPA notifies an area that a shortfall exists, and that the shortfall is less than 3 percent, the State may choose which contingency measures in its intital (3 percent) contingency plan to implement to meet the shortfall.

The EPA believes that a 3-percent contingency will be adequate for most areas; however, there is the possibility that in some cases 3 percent may be inadequate especially if corrective action is not instituted in a timely manner prior to a milestone date.

To address this possible shortfall (i.e., more than a 3-percent shortfall), EPA will require moderate and above areas to submit both contingency measures providing for a 3-percent reduction and an enforceable commitment to submit an annual tracking program describing the degree to which it had achieved its projected annual emissions reduction (see "Tracking Plan Implementation," section III.A.3(d)). In that annual report, the State must describe what actions it will take to make up for any shortfall before the next milestone, e.g., adopt and implement additional measures (aside from the contingency measures) so as to prevent failure to meet the milestone and therefore not triggering the 3-percent contingency measures. Alternatively, the States must provide for additional contingency measures sufficient to cover the additional shortfall expected due to the milestone failure. Within 1 year from the submittal of such report, the State must submit whatever additional measures will be needed to cure this shortfall. Therefore, more than the "3 percent" of contingency measures could be available as a reserve, even though EPA would only require sufficient contingency measures to be implemented to compensate for the degree of failure. In other words, a shortfall of 2 percent would require implementation of sufficient measures to make up for the 2 percent, not the entire

[2] These emission reductions would be in addition to those that were already scheduled to occur in accordance with the plan for the area.

[3] The adjusted base year inventory is that inventory specified by the provisions under section 182(b)(1)(B).

[4] The moderate area would actually be bumped up to either of the next higher classifications (i.e., serious or severe; areas cannot be bumped up to extreme for failure to attain), if justified by the air quality levels (the design value) at the time.

3 percent (or possibly more, due to the above procedure).

Sections 172(c)(9), 182(c)(9), and 187(a)(3) specify that the contingency measures shall "take effect without further action by the State or the Administrator." The EPA interprets this requirement to be that no further rulemaking activities by the State or EPA would be needed to implement the contingency measures. The EPA recognizes that certain actions, such as notification of sources, modification of permits, etc., would probably be needed before a measure could be implemented effectively. States must show that their contingency measures can be implemented with minimal further action on their part and with no additional rulemaking actions such as public hearings or legislative review. In general, EPA will expect all actions needed to affect full implementation of the measures to occur within 60 days after EPA notifies the State of its failure.

(d) *Tracking plan implementation.* Section 182(b)(1)(A) of the Act requires States with ozone nonattainment areas classified as moderate or higher to submit plans that contain certain "specific annual reductions in emissions of volatile organic compounds and oxides of nitrogen as necessary to attain the national primary ambient air quality standard for ozone by the attainment date applicable under this Act."

Even though the 1990 CAAA contain more specifications for evaluating whether the required emissions reductions have been achieved than the Act previously did, EPA believes that additional actions are needed to assess "interim" State progress in achieving the milestones, which occur (for serious and above areas) 6 years after enactment and every 3 years thereafter (as discussed in section III.A.4.(f)). Furthermore, sections 171(1) and 172(c)(2) provide that all SIP's must require annual incremental emissions reductions as needed to attain by the applicable date.

To meet the section 182(b)(1)(A) requirements, the State plans for moderate and above ozone areas must project the annual progress (i.e., the implementation of measures with the appropriate schedules and the expected emissions reductions) that will result from their control strategies. (See discussion under section III.A.3.(a), requirement for 15 percent reduction in emissions.) These projections must be contained in the State submittal due by November 15, 1993, and must demonstrate that the area will achieve a 15 percent net reduction in VOC emissions (plus whatever additional reductions are needed to attain) by November 15, 1996.

The primary means of demonstrating rate of progress will be through the periodic inventories (i.e., complete, actual inventories) submitted every 3 years. At this time, EPA intends to rely on existing reporting requirements such as emissions statements, compliance certifications, periodic inventories, and the annual AIRS update, rather than imposing additional reporting requirements on the States.

(e) *Major stationary source definition.* For ozone nonattainment areas classified as moderate areas, the term "major stationary source," for purposes of the NSR program and (as discussed below) the RACT requirements for major non-CTG sources, means any stationary source that emits or has the potential to emit 100 tons per year or more.

(f) *RACT "catch-ups"*—(1) *Applicability.* The 1990 CAAA require moderate areas to adopt RACT standards for three types of sources or source categories. This requirement is in addition to the RACT "fix-up" requirement of section 182(a)(2)(A), discussed in section III.A.2.(b) above. The RACT catch-up requirement is meant to ensure that all moderate and above nonattainment areas, regardless of time of designation, have in place all RACT for source categories covered by the CTG's and for major sources that are not subject to a CTG. Stated differently, it requires moderate and above nonattainment areas that previously were exempt from certain (or all) RACT requirements, to "catch up" to those nonattainment areas that were subject to those requirements during that earlier period.

All States should submit negative declarations for those source categories for which they are not adopting CTG-based regulations (because they have no sources above the CTG recommended threshold) regardless of whether such negative declarations were made for an earlier State implementation plan. This is necessary since there may now be sources in the nonattainment area that previously did not exist, or in areas where the boundaries of the nonattainment area have expanded, there may be sources in the new portion of the nonattainment area which should not be overlooked.

Under the first category of requirements in section 182(b)(2) (subparagraph [A]), nonattainment areas are required to adopt RACT for all VOC sources covered by any CTG document issued by the Administrator after enactment and before the area is required to attain the standard. The EPA is required to adopt 11 CTG's before November 15, 1993 (section 183). Although EPA has not yet issued these 11 CTG's, EPA has issued a CTG document in which it lists the 11 CTG's that the Agency plans to issue in accordance with section 183, and establishes the time tables for submittal of RACT rules applicable to the sources covered by those CTG's. This document is located in appendix E.

Under the second set of RACT requirements (subparagraph [B]), the State must adopt provisions applying RACT requirements to all VOC sources covered by any CTG issued before the date of enactment of the new law, even if the CTG was not previously applicable in the area under the previous law. Under the requirements established for implementing the Act prior to the 1990 CAAA, some nonattainment areas were not required to apply RACT to all sources for which there were CTG's. These include areas that originally projected attainment by 1982 and that were not subject to a later EPA call letter for SIP revisions. These areas had to apply RACT for the source categories covered by the Group I and II CTG's that had been issued before the 1982 attainment date; however, they were not required to apply RACT to the categories covered by the Group III CTG's, which were issued after the 1982 attainment date. Thus, for example, the new law requires any nonattainment areas not previously subject to all the CTG's to "catch up" and apply RACT to all sources covered by all the CTG documents. Nonattainment areas not previously required to apply RACT to sources covered by Group III CTG's will have to do so in the SIP revisions. In addition, areas previously consider rural nonattainment areas, which had to apply RACT only to certain major sources in certain CTG categories under prior policy, will have to revise their SIP's to apply RACT to all sources, including nonmajor sources that are covered by any CTG. This requirement does not apply, however, to RTA's that satisfy section 182(h) as discussed in section III.A.2.(g).

In the third case (subparagraph [C]), States are to adopt plans that apply RACT to all other major stationary sources of VOC's in the area, even if no CTG has been issued by EPA with respect to that source. The burden falls on the State to determine individual RACT rules for each of the sources or a "catch-all" RACT rule that would cover major non-CTG sources. In the past, only certain nonattainment areas were required to adopt such "non-CTG"

RACT rules. Under subparagraph (C), all other moderate to extreme nonattainment areas must "catch up" by adopting RACT rule requirements for major non-CTG sources.

(2) *Schedule.* For sources subject to a post-enactment CTG document, States must adopt RACT rules in accordance with the schedule set forth in a post-enactment CTG document. The EPA has issued its first post-enactment CTG document, attached as Appendix E, which establishes the list of the 11 CTG's EPA plans to issue and the applicable dates for submittal of RACT rules for sources subject to a post-enactment CTG. In the CTG document, EPA has provided that States must comply with the RACT submittal time tables established in an applicable CTG. These time tables will establish RACT submittal dates and implementation dates. However, if no CTG has been issued and, therefore, no time table has been established by November 15, 1993, for one or more source categories, the State must submit RACT rules applicable to that source or source category by November 15, 1994. In such a case, those rules must provide that the source must implement those requirements by May 15, 1995.

Areas must submit RACT "catch up" rules for sources covered by a pre-enactment CTG and for major sources not subject to a pre-enactment CTG or covered by the CTG document in Appendix E in the form of a SIP revision request, within 2 years of enactment (i.e., by November 15, 1992). This submittal should also identify sources that are major but which are subject to a post-enactment CTG document. The SIP revisions must provide for the implementation of the RACT measures as expeditiously as practicable, but no later than May 31, 1995.

(3) *Interface with early reductions.* The EPA is required to promulgate maximum achievable control technology (MACT) standards under section 112 for sources which emit hazardous air pollutants (at a minimum, the 189 pollutants listed in section 112(b)(1)). These standards will be promulgated by November 15, 2000 (section 112(e)). The EPA must promulgate the first set of MACT standards by November 15, 1992. Section 112 also provides a mechanism whereby sources may elect to defer compliance with an applicable standard by achieving an early 90 percent (95 percent for particulate matter) reduction in emissions of hazardous air pollutants at specified units (section 112(i)(5)). For sources subject to the first round of MACT standards, a source can obtain the 6-year extension if it commits to make the 90 percent reduction prior to proposal of the MACT standard and actually achieves the 90 percent reduction prior to January 1, 1994. For later standards, the applicant must demonstrate that the 90 percent reduction has been achieved prior to proposal of the applicable MACT standard. Therefore, within the next few months, the sources that are affected by the first phase of MACT standards may begin to submit enforceable commitments for the early reductions program.

In some instances, a source that elects to participate in the early reductions program will also be subject to a future RACT requirement under section 182. Sources may be hesitant to participate in the early reductions program because of the uncertainty regarding future, as yet unspecified, RACT requirements. To alleviate concern about certain RACT requirements, where a source is not subject to a RACT requirement (State is not yet obligated to adopt under the CAAA) at the time it submits an early reductions plan but subsequently becomes subject to such a requirement, EPA believes that it is reasonable to consider the early reductions program in its analysis of what RACT is for that source. In other words, when the State does submit a SIP revision with new RACT requirements that would be applicable to a source that elected to participate in the early reductions program, EPA will consider the reductions made through the program as a factor in determining if the source has implemented a RACT level of control. The EPA anticipates that the fact that a source has made a 90 percent reduction in overall VOC emissions from specified emissions points will be a major consideration in establishing RACT for those emissions points.[5] This issue will be discussed in more detail in the rulemaking on the early reductions program.

As a general rule, EPA will not revisit the RACT issue once the deferment of compliance with a MACT standard has ended. In most cases, the MACT controls should be more stringent than the reductions achieved through the early reductions program. Therefore, once MACT is in place, VOC emissions should not increase.

[5] These principles are based on the assumption that a source is not reducing its hazardous air pollutants by replacing them with nonhazardous VOC's. While EPA recognizes this as a legitimate approach for reducing hazardous air pollutants, EPA would not be able to consider this type of program as a factor in establishing RACT for the source if it does not achieve any real reductions of VOC emissions.

(4) *Guidance.* Under section 183, EPA is to issue several forms of guidance that should help the States meet the requirements of section 182(b)(2). The EPA is required to issue CTG's for VOC emissions from 11 categories of stationary sources for which CTG's have not previously been issued. In addition, EPA must issue CTG's to control VOC emissions from aerospace coatings and solvents and to control emissions from paints, coatings, and solvents used in shipbuilding operations and ship repair. All of these documents are due within 3 years of enactment. The EPA must also conduct a study of VOC emissions from consumer or commercial products and submit a report to Congress not later than 3 years after enactment. Based on the study and report, EPA is required to regulate categories of consumer and commercial products within the time frame set forth in section 183(e)(3)(A).

In addition, the CAA require EPA to recommend alternative control techniques (ACT's) for all categories of stationary sources of VOC and NOx that emit or have the potential to emit 25 tons per year or more of such pollutant. These documents are also due within 3 years of enactment. While these documents will not contain presumptive RACT, they will contain much of the background information on control technologies, costs, etc., which can be used by the States in supporting RACT determinations for major non-CTG sources.

Finally, within 1 year of enactment, EPA is to issue guidance on evaluating the relative cost effectiveness of various control options for controlling emissions from existing stationary sources that contribute to nonattainment. In addition, under section 108(h), EPA is to establish a central data base to make information available concerning emissions control technology, including information from SIP's requiring permits.

(g) *Gasoline vapor recovery.* (Stage II Vapor Recovery Systems). Section 182(b)(3) mandates that States submit a revised SIP by November 15, 1992 that requires owners or operators of gasoline dispensing systems to install and operate gasoline vehicle refueling vapor recovery ("Stage II") systems in ozone nonattainment areas designated as moderate and above. Private fueling facilities (such as government and company fleet fueling facilities) as well as retailers, are subject to the Stage II requirements. Stage II is required at gasoline dispensing facilities that dispense more than 10,000 gallons of gasoline per month (or 50,000 gallons per month for the "independent small business marketers" defined under

section 324). States must require Stage II to be effective under a specified phase-in schedule of 6 months after the State adopts the required regulation for stations constructed after November 15, 1990; 1 year after the adoption date for stations dispensing at least 100,000 gallons per month, based on the 2-year period before the adoption date; and 2 years after the adoption date for all other facilities required to install controls. Also, as appropriate, EPA shall issue guidance concerning the effectiveness of Stage II systems.

Stage II systems have been installed and operated in California for over 10 years and in some other portion of the country for a shorter period. Areas with existing Stage II programs have been implementing their programs using the same approach used in California. The California Air Resources Board (CARB) has been testing and certifying systems for at least 95 percent vapor recovery using established test procedures and methods. Once a system has been certified, a station can install the same Stage II system design without needing to test for 95 percent control effectiveness. To ensure that they are properly installed and maintained, systems are tested with low-cost vapor leakage and blockage tests at installation and then subjected to periodic enforcement inspections.

The EPA intends to require all States to adopt a similar Stage II program approach. That is, States would be required to prescribe the use of Stage II systems that achieve at least 95 percent control of VOC's and that are properly installed and operated.

As an alternative to testing each station for 95 percent control effectiveness, States may require installed Stage II systems to be certified to achieve at least 95 percent either by CARB, or by using CARB test procedures and methods or equivalent test procedures and methods developed by the State and submitted as a SIP revision. In addition, States must require the installed systems to be tested for proper installation and must perform all necessary enforcement.

Supporting and background material for developing, implementing, and enforcing this type of program is provided in technical ("Technical Guidance—Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities—Volume 1," November 1991) and enforcement ("Enforcement Guidance for State II Vehicle Refueling Control Programs," December 1991) guidance that the Agency has issued. The Agency now notifies the public that this is guidance issued by the Administrator pursuant to section 182(b)(3)(A).

Additional Stage II provisions contained in section 202(a)(6) concern onboard (on-the-vehicle) vehicle refueling control standards, which are to be developed after consultation with the Secretary of Transportation regarding the safety of onboard systems. Under this section, States are not required to apply the Stage II requirements of section 182(b)(3), gasoline vapor recovery, to facilities located in moderate ozone areas if EPA promulgates onboard refueling control standards. These provisions will be addressed in a separate Federal Register notice.

(h) *Basic I/M.* Section 182(b)(4) requires moderate ozone nonattainment areas to implement basic I/M programs at least as stringent as those required in section 182(a)(2)(B) immediately upon enactment, regardless of whether an I/M program was previously required. Therefore, all moderate areas must either continue existing I/M programs and make corrections to programs required by existing policy or to programs committed to in the SIP in effect at enactment, whichever is more stringent; or develop basic I/M programs consistent with EPA guidance. These areas must also submit revisions addressing revised basic I/M program policy for new and existing programs once revised policy is published. The I/M programs are required in the urbanized area portions of the nonattainment area.

The statute requires these plans "immediately" after enactment, even though in a few cases such areas may be subject to this requirement for the first time. The EPA would normally provide at least 1 year for an area newly subject to such requirements to adopt and implement an I/M program. The EPA will use its authority under the new section 110(k)(4) to conditionally approve basic I/M programs in the case of moderate ozone areas that were newly subject to this requirement at the time of enactment, based upon the State's commitment to develop such a program within 1 year from conditional plan approval, or by the date established EPA's guidance, whichever is sooner.

The EPA will, under section 182(i), require SIP revisions to provide for a basic I/M program within 1 year in areas newly subject to basic I/M requirements in the future as a result of redesignation or reclassification to moderate ozone nonattainment. Where the boundaries of a nonattainment area are changed any time after enactment pursuant to section 107(d)(4)(A), EPA will again conditionally approve SIP revisions based upon commitments submitted promptly after designation to adopt I/M programs within 1 year of conditional plan approval, or consistent with EPA guidance, whichever is sooner in any areas newly subject to I/M requirements by virtue of the boundary change.

The EPA expects to issue the policy for I/M areas in the near future. When published, the policy for I/M programs will state the date when such programs are to be implemented. States that have both basic and enhanced I/M areas may opt to implement enhanced programs in all affected urbanized areas. States which are only required to implement basic programs must submit SIP revisions for I/M programs addressing any revised policy. The guidance will cover the elements of the SIP revision.

In the event that a moderate ozone nonattainment area fails to attain the ozone standard by the applicable deadline or extended deadline, and is reclassified to serious or worse, an inhanced I/M program must be implemented, if the population criteria (an urbanized area, as defined by the Bureau of the Census in 1980, with a population greater than 200,000) are met. The EPA will, under section 182(i), require a SIP revision to provide for an enhanced I/M program within 2 years of the reclassification. As mandated by section 202(m), the Administrator will promulgate regulations requiring manufacturers to install diagnostic systems on all new light-duty vehicles and light duty trucks. The purpose of these systems is to identify and track emission-related systems deterioration or malfunction. According to section 202(m)(3), within 2 years of EPA's promulgating regulations requiring States to do so, all States with I/M programs must amend their SIP to provide for inspection of these onboard diagnostics systems. The EPA will issue revised I/M guidance which addresses onboard diagnostic inspections.

(i) *NSR*—(1) *NSR offset ratio.* For the purpose of satisfying the emissions offset reduction requirements of section 173(a)(1)(A), the emissions offset ratio is the ratio of total actual emissions reductions to the total allowable emissions increases of such pollutant from the new source. For ozone nonattainment areas classified as moderate, the emissions offset ratio is at least 1.15 to 1.

(j) *Bump-up requirements.* As discussed in section III.A.2(i) marginal, moderate, and serious areas will be bumped up if they fail to attain. When a moderate area is bumped up to serious,

section 107(d)(4)(A)(iv) requires that the boundaries reflect the MSA/CMSA unless within 45 days the State notifies EPA of its intent to study the appropriate boundaries for that area. If a State does make such notification, a final determination of boundaries must be made by EPA within 8 months of reclassification to serious.

4. Serious Areas

Serious areas are required to meet all moderate area requirements, unless otherwise noted, as well as the following additional requirements.

(a) *Major stationary source definition.* For ozone nonattainment areas classified as serious areas, the term "major stationary source," for purposes of the NSR program and the RACT requirement for major non-CTG sources, includes any stationary source or group of sources located within a contiguous area and under common control that emits or has the potential to emit at least 50 tons per year.

(b) *RACT.* In serious areas, the same RACT requirements apply as for marginal and moderate areas. However, the major source cutoff is reduced to 50 tons per year sources. This lesser cutoff would result in the need for additional RACT rules in cases where no existing CTG applies to a source located in a serious area and emitting above 50 tons per year, or an existing CTG for the source category subject to a 50 ton per year cutoff only applies to sources above a higher cutoff. Rules for these sources would be subject to the same schedule and requirements of non-CTG RACT specified by section 182(b)(2)(C) (i.e., rules are due by November 15, 1992).

(c) *NSR*—(1) *Offset ratio.* For the purpose of satisfying the emissions offset reduction requirements of section 173(a)(1)(A), the emissions offset ratio is the ratio of total actual emissions reductions to total allowable increased emissions of such pollutant. For ozone nonattainment areas classified as serious, the emissions offset ratio is at least 1.2 to 1.

(2) *Special rules for modification.* State NSR permit requirements for major modifications must be revised in accordance with new rules for modifications under section 182(c) (6), (7), and (8) of the Act. These new rules apply to proposed emissions increases resulting from modifications of major stationary sources in serious and severe areas for ozone. As explained below, these new rules change the way in which proposed modifications must be evaluated to determine whether a major modification will occur, and establish new requirements for sources which are determined to be major modifications.

(i) De Minimis rule. New section 182(c)(6) revises the de minimis test which must be applied to any proposed emissions in a serious (or severe) area. The new de minimis rule establishes an emissions threshold of 25 tons aggregated over a 5-year period to replace the current EPA threshold of 40 tons per year. It also requires an evaluation of past net increases even when the proposed increase itself is below the de minimis level.

Thus, an emissions increase resulting from a proposed modification of a major stationary source is de minimis if the net emissions increase—which is to be calculated by aggregating the proposed increase with all other creditable increases and decreases in emissions from the source from the 5 prior calendar years (including the calendar year of the proposed change)—is 25 tons or less. In a break with previous EPA policy, this provision requires this 5-year evaluation even if the proposed increase standing alone would not exceed the de minimis threshold of 25 tons. Consequently, even a small proposed increase (itself less than 25 tons) may not be de minimis and could cause the proposed change to be treated as a major modification subject to the special modification provisions described in the following two sections.

(ii) Modifications of sources emitting less than 100 tons per year. For a proposed modification that is not de minimis (according to the special de minimis rule under section 182(c)(6)), a major stationary source emitting or having the potential to emit less than 100 tons per year must satisfy special rules, delineated under new section 182(c)(7) for such modifications. Under these rules, the proposed modification is subject to the part D NSR permit requirements as a major modification unless it can offset the proposed emissions increase with greater emissions reductions at the source at an internal offset ratio of at least 1.3 to 1. Section 182(c)(7) provides that in the absence of sufficient internal offsets, the part D permit requirements of section 713 must be met, except that when applying the requirement of section 173(a)(2) to such modification, the source shall apply best available control technology (BACT), as defined in section 169 of the Act, as a substitute for the lowest achievable emissions rate (LAER). All other permit requirements of section 173(a) must be satisfied, including the requirement for an emissions offset ratio of at least 1.2 to 1.

(iii) Modifications of sources emitting 100 tons per year or more. If a proposed modification which is not de minimis would occur at a major stationary source emitting or having the potential to emit 100 tons per year or more, then rules consistent with section 182(c)(8) of the CAAA must apply. Section 182(c)(8) provides that such modification is a major modification and is subject to the part D permit requirements. However, the source may elect to offset its proposed emissions increase with a greater reduction in emissions at the source at an internal offset ratio of 1.3 to 1 in order to avoid the requirements of section 173(a)(2) concerning LAER. If the source elects not to obtain the appropriate internal offsets, then LAER will apply with respect to the major modification. In any case, all other part D permit requirements, including emissions offsets at the prescribed ratio 1.2 to 1, must be satisfied by the major modification.

(d) *Enhanced monitoring.* Section 182(c)(1) requires that all SIP's for serious ozone nonattainment areas contain a program of measures designed to enhance and improve both ambient air quality monitoring and emissions monitoring. The program for enhanced ambient air quality monitoring should contain measures for ozone, NO_x, and VOC pollutants. The program for enhanced emissions monitoring should contain measures for NO_x and VOC's. States are required to take immediate action to adopt and implement an enhanced monitoring program upon the issuance of rules to be promulgated by EPA. Upon promulgation of these rules, EPA will provide further direction as to the required actions and schedules for States.

(e) *Attainment demonstration.* Section 182(c)(2)(A) requires a SIP for a serious ozone nonattainment area to provide an attainment demonstration by November 15, 1994. The "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" (section 182(c)(2)(A)). This requirement can be met through applying EPA-approved modeling techniques for SIP revisions (see EPA's "Guideline on Air Quality Models (Revised)," 1986). The Urban Airshed Model is recommended for modeling applications involving entire urban areas.

Serious areas generally must meet all requirements of moderate ozone nonattainment areas. As discussed above, moderate ares are required to provide for reductions in VOC and NO_x emissions "as necessary to attain the national primary ambient air quality

standard for ozone" (section 182(b)(1)(A)). To determine the "necessary" emissions reductions, an attainment demonstration is generally required by November 1993, if a photochemical grid model is not used. Serious (and higher) areas, however, must complete photochemical grid modeling analyses and have longer attainment deadlines. In consideration of the additional time necessary to gather data to support and to perform a grid modeling analysis, Congress provided an additional year for serious (and higher) areas to submit their demonstrations of attainment. In light of the fact Congress allowed this additional year, EPA believes that the section 182(c) requirement for serious and higher ozone nonattainment areas to submit photochemical grid modeling by November 1994 supersedes the attainment demonstration otherwise applicable under section 182(b).

When projecting motor vehicle emissions for the attainment and rate of progress demonstration after 1996, States should use the same procedures as given in the EPA VMT forecasting and tracking guidance for serious CO nonattainment areas. For VMT projections up through 1996, States may follow the procedures for VMT forecasting and tracking for moderate CO nonattainment areas. The use of this guidance is limited to projecting motor vehicle emissions; the information in the reporting requirements for moderate or serious CO areas is not applicable.

(f) *Rate of progress demonstration.* Section 182(c)(2)(B) requires that serious ozone nonattainment areas must submit by November 15, 1994 (4 years after enactment), a rate of progress demonstration. The plan must provide for reductions in ozone season, weekday VOC emissions of at least 3 percent per year net of growth averaged over each consecutive 3-year period beginning in 1996 until the attainment date. This is in addition to the 15 percent reduction over the first 6-year period required in areas classified as moderate and above. The baseline for the 3 percent per year rate of progress reductions and creditability requirements are the same as for the 15 percent progress requirement under section 182(b)(1). See section III.A.3.(a) above for a discussion of EPA's focus on ozone season weekday VOC emissions.

Similar to the calculations for the 15 percent requirement (see section III.A.3.(a) of this document), the State must first calculate the 1990 adjusted base year inventory.

(1) *Adjusted base year inventory calculation.* The adjusted base year inventory should be calculated in two steps. The first step consists of developing a 1990 inventory of non-mobile anthropogenic VOC emissions. The second step consists of determining the mobile portion of the inventory after the FMVCP and RVP reduction programs (promulgated by the date of enactment or required by section 211(h)) are factored out. Since the effect of the pre-enactment or current FMVCP as a cumulative reduction from 1990 levels increases each year because of fleet turnover, there will actually be a separate 1990 baseline applicable to each evaluation year specified (e.g. 1999, 2002, etc.).

The determination of the baselines will require the use of MOBILE4.1 to model the effects of fleet turnover and RVP changes. For a given evaluation year, the baseline will be determined by applying the 1990 VMT to a hypothetical emissions factor for the evaluation year. The hypothetical emissions factor for the 1990 baseline in 1999 (or 2002, 2005, etc.) is the 1999 (or 2002, 2005, etc.) emissions factor determined by running MOBILE4.1 using 1999 (or 2002, 2005, etc.) as the evaluation year and the same input parameters used to describe the FMVCP and SIP requirements in 1990, with the addition of RVP at 9 psi (or less where approporiate). Multiplying this emissions factor by the 1990 VMT results in 1990 motor vehicle baseline emissions which exclude the emissions reductions that would be eliminated in 1999 (or 2002, 2005, etc) as a result of fleet turnover under the pre-enactment FMVCP and the section 211(h) RVP requirements. The 1990 motor vehicle baseline emissions for 1999 (or 2002, 2005, etc.) are added to the 1990 inventory of non-motor vehicle anthropogenic VOC emissions to calculate the 1990 total baseline emissions for 1999 (or 2002, 2005, etc.). This number is the adjusted base year inventory needed to calculate the target level of emissions in 1999 (or 2002, 2005, etc.).

Any emissions reductions expected to result by the evaluation year (e.g., 1999, 2002, etc.) from corrections to RACT rules or I/M programs should be subtracted after the baseline has been used to calculate (according to the procedure discussed below) the target level of emissions.

The target level of emissions for a milestone year is the total amount of emissions allowed in the area in order to meet the rate of progress requirement for the year in question. The 1999 target level of emissions can be calculated from 1990 total baseline emissions for 1999 and the 1996 target level of emissions. However, an additional correction factor is needed to account for the mobile source emissions reductions that would have occurred under the pre-enactment FMVCP and section 211(h) RVP requirements between 1996 and 1999 as a result of fleet turnover (assuming that all I/M deficiencies have been fixed). This correction factor is simply the difference between the 1990 total baseline emissions for 1996 and the 1990 total baseline emissions for 1999. The 1999 target level of emissions is therefore calculated by subtracting this fleet turnover correction factor, and 9 percent of the 1990 total baseline emissions for 1999, from the 1996 target level of emissions.

In subsequent milestone years, the fleet turnover correction factor is the difference between the 1990 baseline emissions for the previous milestone year and the 1990 baseline emissions for the current milestone year. The target level is calculated by subtracting this fleet turnover correction factor and 9 percent of the 1990 total baseline emissions for the current milestone year, from the target level of emissions in the previous milestone year.

Once the target level of emissions for a milestone year is calculated, States can develop whatever control strategies are needed to meet that target. Some air planning agencies may be used to thinking in terms of the emissions reductions required relative to a current control strategy projection (particularly for stationary sources), rather than a target level of emissions. Projections of milestone year emissions would be used to calculate the required emissions reductions expressed on such a basis, by simply taking the difference between the milestone year projection inventory (without controls applied) and the milestone year target level of emissions. However, States that choose this approach should be aware that the milestone year target level is dependent only on the 1990 emissions inventory, whereas the calculation of an emissionsreduction required relative to the current control strategy projection depends on the accuracy of the milestone year projection, which in turn depends on the estimate of future growth in activities. The assessment of whether an area has met the reasonable further progress requirement in the milestone year will be based on whether the area is at or below the milestone year target level of emissions and not whether the area has achieved a certain actual emissionsreduction relative to having maintained the current control strategy.

Formulas:

BE_x = 1990 baseline emissions calculated relative to year x

x = milestone year
x = 1999, 2002, 2005, 2008
BG_9 = 9 percent emissionsreduction requirement
TL_x = target level of emissions permitted for year x
$BG_9 = BE_x \times (0.09)$
FT_x = Fleet turnover correction factor
$FT_x = BE_x - 3 - BE_x$
$TL_x = TL_{x-3} - BG_9 - FT_x$
Example: $_x = 1999$
$TL_{99} = TL_{96} - BG_9 - FT_{99}$

For areas with attainment dates occuring in 2007 and 2010 (i.e., Severe 2 and Extreme areas, respectively), the following formulas should be used for calculating the target level of emissions for the attainment year. The final emissions reductions requirement prior to attainment for these areas is 6 percent over a 2-year period (i.e., the time between the last milestone and the attainment date is 2 years).

x = milestone year
x = 2007, 2010
BE_x = 1990 baseline emissions calculated relative to year x
BG_6 = 6% emissions reduction requirement, before growth
TL_x = target level of emissions permitted for year x
$BG_6 = BE_x \times (0.06)$
$TL^x = TL_{x-2} - BG_6$
$FT_x = BEx - 2 - BE_x$
Example: $_x = 2007$
$TL_{07} = TL_{05} - BG_6 - FT7$

(Note: The correction factor for RACT rule and I/M program correction is not included in these calculations because the associated emissions reductions should have been realized prior to the end of 1996. If this is not the case, an adjustment should be made as in the calculation of the target level of emissions for the first 6 years.)

As discussed in section III.A.3.(a) of this preamble, if changes in emissions factors or in methodologies for developing emissions inventories occur after the 15 percent demonstration is submitted, but before November 15, 1996, then States need not correct the base year inventory—the adjusted baseline on the projection inventory for purposes of reconciling the 15 percent demonstration. However, if such changes occur after November 15, 1991, but prior to November 15, 1994, a serious or above area may be required to make corrections to the base year inventory and attainment year projection inventory for the purposes of developing the 3 percent rate of progress demonstration. If such changes occur after November 15, 1994, EPA will advise on when it would be appropriate for the States to make corrections in future supplements to this General Preamble.

The statute explicitly states that, after 1996, emissions reductions from NOx sources can be substituted for VOC emissions reductions if the resulting reduction in ozone concentrations is at least equivalent to that which would result from VOC emissions reductions. Emissions reductions of NOxare subject to the creditability provisions under section 182(b)(1)(C) and (D). Additionally, any actual NOx emmissions reductions in excess of growth in NOx emissions during the 1990–1996 period may be used to meet post-1996 emissions reductions requirements for ozone nonattainment areas classified as serious. Like VOC reductions, these NOx reductions must be real, enforceable, permanent, net of growth, and meet the creditability requirements. In addition, the NOx reductions must meet the guidance under which NOx reductions can be substituted for VOC reductions. If an area substitutes NOx reductions for VOC reductions, then a rate of progress curve (similar to the one required for VOC) must also be developed for NOx.

Certain NOx emission reduction requirements may also be averaged consistent with EPA guidance. The CAAA encourage the use of market-based approaches in both titles I and IV. The use of economic incentives is explicitly allowed in sections 110(a)(2) and 172(c)(6) of title I. Provisions for averaging emissions of NOx over two or more units are contained in section 407(e). However, compliance with relevant titles would have to be maintained.

If the State elects to allow any pre-enactment banked emissions reductions credits to be used for purposes of new source offsets during the period between 1996 and attainment, then these emissions must be treated as growth (i.e., banked credits become emissions upon use). As such, the increase in emissions must be accounted for in order to ensure the rate of progress requirement is achieved.

States can only count emissions reductions toward the 3 percent per year requirement if such emissions meet the creditability and reduction requirements. All creditable emissions reductions must be real, permanent, and enforceable. States must keep careful records of all emissions reductions to ensure that the same reductions are not used more than one time (i.e., reductions cannot be used for offsets and to meet the rate of progress requirement). Any creditable VOC emissions reductions achieved beyond the required 15 percent during the first 6 years after enactment of the 1990 CAAA (November 15, 1990–November 15, 1996) can be counted toward meeting the 3 percent rate of progress requirement. For example, if an area achieves 20 percent creditable VOC emissions reductions during the first 6 years, then the area can apply the 5 percent surplus reductions toward the 9 percent requirement for years 1996–1999.

Actual NOx emissions reductions exceeding growth in NOx emissions since the 1990 base year may be used to meet post-1996 emissions reductions requirements for ozone nonattainment areas classified as serious and above. Section 182(c)(2)(C) grants EPA broad discretion in determining the conditions under which NOx control may be substituted for, or combined with, VOC control to maximize reduction in ozone air pollution. The EPA believes that since VOC reductions in 1990–1996 (in excess of the required progress amount of 15 percent, which in turn is net of growth) can be carried over to the post-1996 period, NOx reductions in excess of growth since 1990 (there is no progress requirement for NOx) may be carried over as well. Note that these NOx emissions reductions are subject to the substitution requirements of section 182(c)(2)(C) and to the same creditability constraints dictated by section 182(b)(1)(C) and (D) as apply to VOC emissions reductions.

Rule-effectiveness improvements are creditable during the post-1996 period. The same requirements apply as in the 15 percent reduction requirement (see section III.A.3.(a)).

All emissions reductions that are to be credited against the percent reduction requirements must come from within the designated nonattainment area. Of course, emissions reductions strategies applied to sources just outside the nonattainment area may have benficial effects on the nonattainment problem within the designated area. The CAAA require that the rate of progress emissions reductions be calculated from the baseline emissions. The baseline emissions are defined to be all emissions "in the area," which EPA interprets to mean in the designated nonattainment area.

After the control strategy is developed, regulations needed to implement the control strategy must be developed and adopted by the State. The control strategy along with the associated regulations must be submitted to EPA by November 15, 1994. The adjusted base year inventory and the attainment year projection inventory must be submitted no later than November 15, 1994; however, EPA may require an earlier draft submission of these documents to allow early review. If the attainment demonstration for a serious nonattainment area shows that an amount greater than 3 percent per

year averaged over the 3-year period of creditable reductions, when combined with the noncreditable reductions, is needed to attain the ozone NAAQS by the applicable attainment date, areas should plan on achieving the emissions reductions as early as possible. In any case, it will be to an area's advantage to implement control measures early since EPA will look at air quality data for the 3 years leading up to the attainment date (i.e., for serious areas, air quality data from years 1997–1999 will be evaluated) to determine if an area has attained the ozone NAAQS. Delaying the implementation of measures until near the attainment date may result in reclassification to the next higher category because emissions reductions would not have come in time to produce timely attainment of the ozone standard. Any regulations required to achieve the annual reductions necessary to attain the standard must be submitted with the control strategy by November 15, 1994.

A nonattainment area can achieve less than the 3 percent per year required reductions if the State can demonstrate that the plan includes all measures that can be feasibly implemented in the area, in light of technological achievability. The EPA will consider on an area-by-area basis what these measures may be, with no presumption beyond that specifically given in section 182(c)(2)(B)(ii), which states that to qualify for a less than 3 percent reduction the State must at least demonstrate that the SIP for the area includes all measures achieved in practice by sources in the same source category in nonattainment areas of the next higher classification. The 3 percent per year requirement cannot be waived for areas classified as extreme. A determination of the waiver from the 3 percent per year requirement will be reviewed at each milestone under section 182(g) and revised to reflect the availability of any new technologies or other control measures for sources in the same category.

By meeting the specific 3 percent reduction requirements discussed above, the State will also satisfy the general RFP requirements of section 172(c)(2) for the time period discussed.

All multi-State ozone nonattainment areas should refer to the multi-State section (III.A.9) for further instructions on coordination of SIP revisions and on the development of the attainment demonstration.

(g) *Milestone compliance.* Serious and above ozone areas must show that they did achieve their rate of progress emissions reductions (called milestones) in the "compliance demonstrations" required by section 182(g)(2). These demonstrations are due 90 days after each milestone was to have been achieved and shall be submitted as an areawide inventory of actual emissions. The EPA is suggesting that the States synchronize their periodic emissions inventories with their milestone compliance demonstrations (see section III.A.2. of this preamble). The EPA will provide further guidance on acceptable approaches to allow for synchronizing periodic emissions inventories and milestone demonstrations so as to meet the 90-day requirement. Consistent with the tracking provisions discussed in section III.A.3.(c), the submittals for serious and above areas due by November 15, 1994, must contain annual projections of control measure implementation and emissions reductions to occur from November 15, 1996 until the attainment date.

(h) *Bump-up requirements.* As discussed in section III.A.2.(i), marginal, moderate, and serious areas can be bumped up if they fail to attain. Section 182(g) adds additional bump-up provisions for serious and severe areas that miss a milestone. Under those provisions, such areas may elect to bump up to the next higher classification as their means of satisfying the milestone requirements (see discussion in section III.A.4.(i)). The States with serious or above ozone areas must submit compliance demonstrations within 90 days after a milestone was to have occurred, and EPA must determine within 90 days of submittal whether the States' demonstrations are adequate (section 182(g)). The milestones are essentially the emissions reductions required by section 182(b)(1) and (c)(2)(B). For example, serious ozone areas must demonstrate that they have achieved the 15 percent emissions reductions requirement of section 182(b)(1) within 90 days after such milestone should have occurred (e.g., 90 days after November 15, 1996, or February 13, 1997).

Any area newly classified as a severe ozone nonattainment area due to bump-up provisions or reclassification under section 181(b) is subject to the reformulated gasoline program under section 211(k). The effective date of such program is 1 year after reclassification.

(i) *Failure to meet a milestone (Economic Incentive Program).* Under section 182(g)(3), if a State fails to submit a milestone compliance demonstration for any serious or severe area as required by section 182(g)(2), the State shall choose from three options: To be bumped up to the next higher classification, to implement additional measures (beyond those in the contingency plan which will already be triggered and implemented) to achieve the next milestone, or to adopt an economic incentive program (as described in section 182(g)(4)). Based on the schedule in section 182(g)(3) for State election, EPA review of election, and the associated SIP revision (section 182(g)(3)), the time available to develop and implement required additional measures or an economic incentive program will be extemely limited if the State waits until a failure occurs to initiate the program of choice. Thus, EPA urges States to initiate program development as soon as they determine that a failure is likely. States are encouraged to consider inclusion of economic incentive programs where appropriate in the SIP submission due 3 or 4 years after enactment to be of use in meeting the first milestone. Submittal at that time would be more likely to allow for sufficient time to develop, implement, and evaluate the effectiveness of the program. Economic incentive programs are discussed in more detail in section III.G.3.

(j) *Enhanced I/M.* Section 182(c)(3) requires "enhanced" I/M programs in each urbanized area of serious and above ozone nonattainment areas as defined by the Bureau of Census, with 1980 populations of 200,000 or more. The section calls for EPA to establish a performance standard for I/M that programs must achieve, and also sets some minimum design requirements. The Act specifies that the State program must include, at a minimum, computerized emissionsanalyzers, on-road testing, denial of waivers for warranted vehicles or repairs related to tampering, a $450 cost waiver requirement (adjusted annually based on the Consumer Price Index) for emissions-related repairs not covered by warranty, enforcement through registration denial unless an existing program with a different mechanism can prove greater effectiveness, annual inspection unless a State can demonstrate that less frequent testing is equally effective, centralized testing unless the State can prove decentralization is equally effective, and inspection of the emissions control diagnostic system (when required by the Administrator). In addition, each State must report biennially to EPA on emissions reductions achieved by the program

In some cases, areas may have become newly subject to both basic and enhanced I/M requirements at the time of enactment, with the basic I/M requirements due shortly prior to the deadline for submission of the SIP revision providing for the enhanced I/M

program. In such cases, EPA regards enhanced I/M requirements as superseding the basic I/M requirements, and therefore will not require the submission of the basic I/M requirements discussed previously. The EPA will, under section 182(i), require SIP revisions to provide for an enhanced I/M program within 2 years in areas newly subject to this requirement in the future as a result of redesignation or reclassification to serious or worse ozone nonattainment.

The SIP's for enhanced I/M programs are due no later than November 15, 1992. In the event that EPA's enhanced I/M performance standard is not finalized soon enough to provide sufficient time for full SIP development, EPA will use its authority under section 110(k)(4) to conditionally approve SIP submittals committing to adopt enforceable enhanced I/M programs consistent with EPA's guidance. The guidance will cover the elements of a full SIP. The SIP must demonstrate that the I/M program will be operated until the area is redesignated to attainment based on EPA's approval of a section 175A maintenance plan without an enhanced I/M program.

As mandated by section 202(m), the Administrator will promulgate regulations requiring manufacturers to install diagnostic systems on all new light-duty vehicles and light-duty trucks. The purpose of these systems is to identify and track emission-related systems deterioration or malfunction. According to section 202(m)(3), within 2 years of EPA's promulgating regulations requiring them to do so, all States with I/M programs must amend their SIP to provide for inspection of these onboard diagnostics systems. The EPA will issue revised guidance which addresses onboard diagnostic inspections.

(k) *Clean-fuel vehicle program*—(1) *Schedule.* The statute contains in sections 182(c)(4) and 246 certain SIP requirements for areas classified as serious or above ozone nonattainment (based on 1987, 1988, and 1989 calendar year data) and with a 1980 population of 250,000 or more. According to these requirements, SIP provisions for implementing the clean-fuel vehicle program for centrally fueled fleet vehicles prescribed in title II, part C, must be submitted to EPA by May 15, 1994. Areas with a 1980 population of 250,000 or more that are reclassified at some future date as serious or above ozone nonattainment areas must also submit such revisions within 1 year of classification. The Administrator may adjust the compliance deadlines for newly classified areas where compliance with the deadlines would be infeasible.

(2) *Clean-fuel fleet program.* The programs must require a specified percentage of certain fleet vehicles purchased in model year 1998 and thereafter to be clean-fuel vehicles and use clean alternative fuels when operating in the area. For light-duty vehicles and light-duty trucks, the required percentage must be 30 percent in 1998, 50 percent in 1999, and 70 percent in 2000 and thereafter. For heavy-duty trucks, the percentage must be 50 percent in each such year. Light-duty vehicles and light-duty trucks in fleets participating in this program for the above model years must meet the low emissions vehicle (LEV) standards for model year 2001. Fleet phase-in requirements for light-duty vehicles and light-duty trucks (6,000 pounds Gross Vehicle Weight Rating [GVWR] or less) depend on the availability of qualifying vehicles in California by 1998 to 2000. If such vehicles are not available in California in advance of model year 2001, the phase-in schedules for these vehicles will be delayed accordingly.

Some of the major program requirements include: Requirements for fuel providers to make clean alternative fuel available to fleet operators; coverage of Federal fleets (except for certain vehicles certified by the Secretary of Defense as needing an exemption based on national security grounds); provisions for issuing credits, consistent with EPA regulations due 1 year from enactment, for purchasing more vehicles than required or vehicles that meet more stringent standards or for purchasing vehicles prior to the effective date of the program. Such credits may be banked and traded within the same nonattainment area; credits may not be traded between light-duty and heavy-duty vehicle classes.

The Administrator will promulgate rules under section 246(h) to ensure that certain TCM's that restrict vehicle usage based on time-of-day or day-of-week consideration will not apply to any vehicles that comply with the fleet program requirements, notwithstanding the relevant provisions of title I.

Additional information on the requirements for clean-fuel vehicle fleet programs for serious CO nonattainment areas is found in clean-fuel vehicle fleet program, section III.B.3.(c).

(3) *Substitutes for the clean-fuel program.* Each State subject to the fleet program may submit a SIP revision by November 15, 1992, consisting of fully adopted control measures as a substitute for all or a portion of the clean-fuel vehicle program required by section 246. The substitute measures must demonstrate to the satisfaction of the Administrator that the long-term reductions in air emissions of ozone precursors and toxic substances are, at a minimum, equal to those that would be achieved under the clean-fuel vehicle program, or a percentage thereof which would be attributed to the portion of the program for which the revision is to substitute. Substitute measures may not include any measures otherwise required by the Act; however, they would count toward the rate of reduction requirements (i.e., 15 percent).

(l) *California Pilot Test Program.* By November 15, 1992, California must submit a SIP revision requiring that sufficient clean alternative fuel be produced and distributed in California to support the title II, part C, section 249(c) mandatory clean-fuel vehicle pilot program, which begins in model year 1996. Sufficient fuel to allow all vehicles required under the program to operate exclusively, to the maximum extent practicable, on clean alternative fuel while operating in California (section 249(c)) must be available. The revision must require an adequate number of supply locations that are sufficiently distributed to ensure convenient refueling of such vehicles. The revision must apply to all classifications of nonattainment areas as well as to attainment areas within California.

Although EPA, in its April 1991 report on "Getting Started on title I," indicated that California could opt out of the California pilot program, EPA now believes that such a procedure is not contemplated under section 182(c)(4)(B), which provides for opt out of clean fuel vehicle programs in certain circumstances. That is because the part of the California pilot program under which vehicle manufacturers will be required to produce and sell clean-fuel vehicles is a mandatory Federal program administered by EPA; unlike the clean-fuel fleet program, it is not a SIP-based program that depends on the existence of SIP revisions for its implementation. Moreover, while California is to implement the fuel availability aspects of the program through SIP revisions, it would deprive the Federal program of its effectiveness if California could opt out of the fuel availability aspects of the program. The clean-fuel vehicles required under the program would not be assured of having the necessary fuels on which to operate. The conclusion that California should not be able to opt out of the fuel availability aspects of the pilot program is buttressed by section 249(c)(2)(F), which requires EPA to establish Federal

fuel availability requirements for California under its section 110(c) FIP authority, if California fails to submit a SIP revision that satifies the fuel availability requirements of section 249(c)(2).

Section 249(f) provides that any serious, severe, or extreme ozone nonattainment area outside of California may opt in to the pilot program by submitting a SIP revision to EPA that provides incentives for selling or using the clean-fuel vehicles and clean alternative fuels as mandated in the California program. Such revisions must comply with EPA regulations to be promulgated within 2 years of enactment and may not take effect until 1 year after a State has notified vehicle manufacturers and fuel suppliers of such requirements.

The incentives may include a registration fee on non-clean fuel vehicles, provisions to exempt clean fuel vehicles from certain TCM's, or preferential parking provisions for clean-fuel vehicles. The revisions may not include any production or sales mandates for clean-fuel vehicles or clean alternative fuels and may not provide sanctions or penalties for failure to produce or sell such vehicles or fuels. The incentives may not apply to fleet vehicles covered by the clean-fuel vehicle fleet program.

(m) *Gasoline vapor recovery.* The Administrator may by rule revise or waive the section 182(b)(3) requirements for stationary source gasoline vapor recovery for serious, severe, or extreme areas, if the Administrator determines that onboard emissions control systems are in widespread use throughout the motor vehicle fleet. The EPA will address this provision in a separate **Federal Register** notice concerning section 202(a)(6).

(n) *Transportation controls.* Section 182(c)(5) requires that beginning 6 years after enactment and at 3-year intervals thereafter, serious areas must submit a demonstration of whether current aggregate vehicle mileage, aggregate vehicle emissions, congestion levels, and other relevant parameters are consistent with those used for the area's demonstration of attainment. If the levels projected in the attainment demonstration are in fact exceeded, the State has 18 months to develop and submit a revision of the applicable implementation plan. This plan must include a TCM program consisting of measures from, but not limited to, section 108(f) that, in combination with other mobile source measures, will reduce emissions to levels that are consistent with emissions levels projected in the attainment demonstration. Areas could alternatively submit a new attainment demonstration accounting for the increased vehicle emissions projections. The EPA will release an update of "Transportation—Air Quality Planning Guidelines" in June 1992 and several TCM information documents which will address the section 108(f) measures.

It is important to note that nonattainment areas are not locked into the estimates of future emissions given in the initial SIP submittal. At any time before an area reaches attainment, the State can amend the area's SIP to get a greater reduction from nonvehicle sources. This change would have the effect of increasing the motor vehicle emissions allowed at the next milestone date.

(o) *Reformulated gasoline for conventional vehicles.* The EPA expects to promulgate regulations this year prohibiting the sale of gasoline that has not been reformulated to be less polluting ("conventional gasoline"). Under section 211(k)(10)(D), the prohibition is to apply in the nine areas having the highest ozone design value during the 1987–1989 period and with 1980 populations over 250,000, and within 1 year, to any area reclassified as a severe ozone nonattainment area. The effective date for the prohibition against the sale of conventional gasoline in these nonattainment areas in January 1, 1995.

The prohibition may be extended to any marginal, moderate, serious, or severe ozone nonattainment area at the request of the Governor of the State in which the area is located. Upon receiving a Governor's application, the Administrator will apply the prohibitions set forth in section 211(k)(5) against the sale or dispensing of conventional gasoline in the "opt-in" area effective no later than January 1, 1995, or 1 year after the application is received, whichever is later. The effective date of the prohibition in the opt-in area may be extended by 1 year up to three times by the Administrator if he finds that there is insufficient domestic capacity to produce enough reformulated gasoline for all areas in which conventional gasoline is to be prohibited. The Administrator must make such extensions for areas with lower classifications before making them for areas with higher classifications.

(p) *Contingency provisions.* For serious areas as required by sections 172(c)(9) and 182(c)(9), the contingency measures could be additional measures not already adopted to meet the RFP or other requirements, or the accelerated implementation of measures already planned to meet a future milestone (see section III.A.3.(c) for additional discussion of contingency measures). In the second case, the State would have to adopt additional measures to backfill the SIP with replacement measures to replace those that were previously used as early-implementation contingency measures, and to assure the continuing adequacy of the contingency program.

The contingency measures for serious and above ozone nonattainment areas are required by section 182(c)(9) to be adequate to correct any shortfall in meeting an emissions reductions milestone (e.g., the 3 percent reduction required by late 1999).[6] This requirement presents the problem mentioned above as to the moderate area contingency requirement (it is difficult to predict how much shortfall an area will face at a milestone and hence how much extra reduction its contingency measures should provide for, and it would be unreasonable to require the State to submit contingency measures adequate to address a hypothetical 100 percent shortfall—i.e., submit contingency measures that essentially double what the basic progress demonstration provides). The solution to the problem of setting the appropriate level of contingency measures described in section III.A.3.(c) (as to contingency measures for areas subject to the 15 percent reduction requirement) would also apply to serious and above areas preparing contingency measures as to post-1996 emissions-reductions milestones.

(q) *Long-term measures.* The EPA recognizes that some serious ozone nonattainment areas (and perhaps areas with long-term attainment dates for other pollutants) will have such large emissions reduction requirements that identifying, developing, and adopting in final form the control measures that represent the areas preferred strategy for their demonstrations of attainment may present an unreasonable burden. The EPA believes that these areas may need additional time to fully develop and adopt certain "long-term" measures that would be the preferred means to reach attainment. These measures would include those that require complex analyses and decisionmaking and coordination among a number of government agencies.

The EPA intends to allow these areas reasonable additional time to complete

[6] If the strategy for an area relies on NO_x substitution in lieu of or in addition to VOC reductions, the State should also submit NO_x contingency measures as necessary to meet the 3 percent requirement.

full development and adoption under the following conditions:

(1) The plan containing the demonstration of attainment must identify each measure for which additional time would be needed for full development and adoption.

(2) The plan must show that the long-term measures cannot be fully developed and adopted by the submittal date for the attainment demonstration.

(3) The plan must contain an enforceable commitment by the relevant agency that development and adoption will occur on an expeditious schedule to achieve specified emissions reductions from each long-term measure for each year through the attainment year.

(4) The plan must contain "backstop" measures that would be implemented to achieve equivalent emissions reductions unless the long-term measure is adopted on schedule.

(5) The long-term measures must not be needed to meet any emissions reduction requirement during the first 6 years after enactment.

The "backstop" measures required under condition #4 must be submitted with the 1994 attainment demonstration in fully adopted form. The "backstop" measures must be designed to go into effect automatically on a schedule sufficient to achieve all of the reductions identified with each long-term measure for each year through the attainment year. The "backstop" measures may represent broad, across-the-board reductions in emissions, rather than thoroughly analyzed and developed control measures. For this reason, EPA does not anticipate the actual implementation of "backstop" measures in most cases as States will have ample opportunity to submit SIP revisions incorporating the fully developed long-term measures and deleting the "backstop" measures from the SIP. Additionally, if a long-term measure cannot be developed, then that State has the option to submit a SIP revision identifying a fully developed and adopted alternative measure to replace the original long-term measure prior to any necessary implementation of "backstop" measures.

Thus, a State may find that progress can be achieved with measures that are fully developed by the 1994 SIP submittal date. However, the State may determine that expeditious attainment of the NAAQS is impossible unless the SIP also includes measures which cannot be fully developed until after the 1994 SIP is due. In its 1994 SIP submittal, the State must clearly describe each of these long-term measures and show that each measure cannot be fully developed and adopted until a specified future date, despite expeditious implementation efforts. The 1994 SIP must include with each long-term measure an enforceable schedule binding responsible agencies to achieve identified emissions reductions from each measure.

Along with these provisions, the State's 1994 SIP submittal must include "backstop" measures. The "backstop" measures must be fully adopted and scheduled for implementation to achieve reductions equivalent to those assigned each year by the long-term measures. When each long-term measure is fully developed, it must be submitted to EPA as a SIP amendment. This amendment would also propose deletion of the associated "backstops." The EPA's approval of the long-term measures would also rescind from the SIP the "backstop" measures.

5. Severe Areas

Severe areas are required to meet all serious area requirements [7], unless otherwise noted, as well as the following additional requirements.

(a) *Major stationary source definition.* For ozone nonattainment areas classified as severe, the terms "major source" and "major stationary source," for purposes of the NSR program and the RACT requirement for major non-CTG sources, include any stationary source, or group of sources, located within a contiguous area and under common control that emits or has the potential to emit at least 25 tons per year.

(b) *RACT.* Section 182(d) requires that the same RACT requirements apply to severe areas as apply to serious areas. Moreover, as in serious areas, the lower applicability cutoff for major non-CTG sources would result in the need for additional non-CTG RACT rules in cases where no existing CTG applies to a source in the area emitting 25 tons per year, or an existing CTG for the source category subject to a 25-tons-per-year cutoff applies only to sources above a higher cutoff. Rules for these sources would be subject to the same schedule and requirements of non-CTG RACT specified by section 182(b)(2)(C) (i.e., rules are due by November 15, 1992 for major sources not covered by an existing or expected CTG).

(c) *NSR*—(1) *Offset ratio.* For the purpose of satisfying the emissions offset reduction requirements of section 173(a)(1)(A), the emissions offset ratio is the ratio of total actual emissions reductions to total allowable increased emissions from the new or modified source. For severe ozone nonattainment areas, the emissions offset ratio is at least 1.3 to 1 unless the SIP requires all existing major sources in the nonattainment area to use BACT, as defined in section 169(3). In this case, the ratio shall be at least 1.2 to 1.

(d) *TCM's to offset growth in emissions from growth in VMT.* Section 182(d)(1)(A), VMT, applies to severe ozone nonattainment areas. This section requires that States submit revisions to their SIP's by November 15, 1992 that identify and adopt "specific and enforceable transportation control strategies and TCM's to offset any growth in emissions from growth in VMT and numbers of vehicle trips" and to achieve reductions in mobile source emissions as necessary in conjunction with other measures to comply with the periodic emissions reduction and attainment requirements of the CAAA. When projecting motor vehicle emissions for this SIP revision, States should use the same procedures as given in EPA's "Section 187 VMT Forecasting and Tracking Guidance" for serious CO nonattainment areas which will be published separately. The use of this guidance is limited to projecting motor vehicle emissions; the information on the reporting requirements for serious CO areas is not applicable.

The TCM offset provisions apply only to emissions of VOC's. In developing their progress and attainment strategies, however, States may wish to adopt similar offset goals for NO_x emissions from mobile sources, in cases where NO_x reductions are beneficial to attainment.

Section 182(d)(1)(A) also requires States to choose and implement such measures as are specified in section 108(f), to the extent needed to demonstrate attainment. In selecting the measures, Congress directed that States "should ensure adequate access to downtown, other commercial, and residential areas and should avoid measures that increase or relocate emissions and congestion rather than reduce them." In order to avoid future SIP deficiencies, findings of nonimplementation, and mandatory sanctions, EPA encourages States to select realistic TCM's. As part of this effort, States should establish aggregate targets for implementation where the TCM involves actions by numerous local jurisdictions unless the State has obtained, in advance, binding implementation commitments from all responsible jurisdictions.

The EPA interprets this provision to require that sufficient measures be adopted so that projected motor vehicle

[7] See discussion under section III.A.3.f ("RFP Demonstration," Serious Areas) regarding the adoption of long-term measures in severe areas.

VOC emissions will never be higher during the ozone season in one year that during the ozone season in the year before. When growth in VMT and vehicle trips would otherwise cause a motor vehicle emissions upturn, this upturn must be prevented. The emissions level at the point of upturn becomes a ceiling on motor vehicle emissions. This requirement applies to projected emissions in the years between the submission of the SIP revision and the attainment deadline and is above and beyond the separate requirements for the RFP and the attainment demonstrations. Which requirements will be more constraining in an area may vary with time, with the areas's mix of sources, and with control measures adopted for other sources. Reductions from any discretionary measures adopted to satisfy this provision are creditable to the RFP requirements.

While the above requirement is simple in concept, its application could encourage areas to delay VMT or emissions reduction measures suitable for use as offsets until the trend in motor vehicle emissions reaches its minimum point and is about to turn upwards. This incentive for delay would exist because earlier implementation would bring the trend to a lower minimum, but would not change the date when the trend line began to increase. Later implementation would, however, delay the date when the trend line would increase. To implement the VMT offset provision while avoiding this counterproductive incentive for delay, EPA has developed the approach described below.

If projected total motor vehicle emissions during the ozone season in one year are not higher than during the ozone season the year before, given the control measures in the SIP, the VMT offset requirement is satisfied. However, if the State plans to implement control measures over and above those specifically required by the Act and those required to demonstrate RFP and attainment earlier than would be necessary and sufficient to prevent an emissions upturn, a projected subsequent growth-related increase to the level of emissions that would occur if these measures were scheduled later will not be considered to violate the requirement to offset emissions increases due to growth in VMT or vehicle trips. The latter situation should be viewed as a temporary reduction in emissions to a level below that required by the provision rather than an increase above the required level, with no effect on emissions at or after the point at which offsetting measures become essential to compliance.

The EPA will approve a SIP revision as meeting this provision despite a forecasted upturn in vehicle emissions, as long as motor vehicle VOC emissions in the ozone season of a given year do not exceed a ceiling level which reflects a hypothetical strategy of implementing otherwise specifically required measures on schedule and saving offset measures until the point at which VMT growth would otherwise cause an emission upturn. The ceiling level is therefore defined (up to the point of upturn) as motor vehicle emissions that would occur in the ozone season of that year, with VMT growth, if all measures for that area in that year were implemented as required by the Act. When this curve begins to turn up due to growth in VMT or vehicle trips, the ceiling becomes a fixed value. The ceiling line would include the effects of Federal measures such as new motor vehicle standards, Phase II RVP controls, and reformulated gasoline, as well as Clean Air Act-mandated SIP requirements such as enhanced I/M, the fleet clean-fuel vehicle program, and the employer trip reduction program. The ceiling line would also include the effect of forecasted growth in VMT and vehicle trips in the absence of new discretionary measures to reduce them. The ceiling line must, in combination with projected emissions from nonvehicle sources, satisfy the RFP requirements for the area. Any VMT reduction measures or other actions to reduce motor vehicle emissions adopted since November 15, 1990 and not specifically required for the area by another provision of the Act would not be included in the calculation of the ceiling line.

Forecasted motor vehicle emissions must be held at or below the minimum level of the ceiling line after the ceiling line reaches its minimum level. If an area implements offset measures early, the forecasted emissions will be less than the ceiling line, and forecasted motor vehicle emissions could increase from one year to the next, as long as forecasted emissions never exceed the ceiling line.

The EPA has received comment indicating that section 182(d)(1)(A) should be interpreted to require areas to offset any growth in VMT above 1990 levels, rather than offsetting VMT growth only when such growth leads to actual emissions increases. Under this approach, areas would have to offset VMT growth even while vehicle emissions are declining. Proponents of this interpretation cite language in the House Committee Report which appears to support the interpretation. The report states that "(t)he baseline for determining whether there has been growth in emissions due to increased VMT is the level of vehicle emissions that would occur if VMT held constant in the area." (H.R. No. 101–490, part 1, 101st Cong. 2d Sess., at 242.)

Although the statutory language could be read to require offsetting of any VMT growth, EPA believes that the language can also be read so that only actual emissions increases resulting from VMT growth need to be offset. The statute by its own terms requires offsetting of "any growth in emissions from growth in VMT." It is reasonable to interpret this language as requiring that VMT growth must be offset only where such growth results in emissions increases from the motor vehicle fleet in the area.

While it is true that the language of the H.R. 101–490 appears to support the alternative interpretation of the statutory language, such an alternative interpretation would have drastic implications for many of the areas subject to this provision. Since VMT is growing at rates as high as 4 percent per year in some cities such as Los Angeles, these cities would have to impose draconian TCM's such as mandatory no-drive restrictions, to fully offset the effects of increasing VMT if the areas where forced to ignore the beneficial impacts of all vehicle tailpipe and alternative fuel controls.

Although the original authors of the provision and H.R. 101–490 may in fact have intended this result, EPA does not believe the Congress as a whole, or even the full House of Representatives, believed at the time it voted to pass the CAAA that the words of this provision would impose such severe restrictions. There is no further legislative history on this aspect of the provision; it was not discussed at all by any member of the Congress during subsequent legislative debate and adoption.

Given the susceptibility of the statutory language to these two alternative interpretations, EPA believes that it is the Agency's role in administering the statute to take the interpretation most reasonable in light of the practical implications of such interpretation, taking into consideration the purposes and intent of the statutory scheme as a whole. In the context of the intricate planning requirements Congress established in title I to bring areas towards attainment of the ozone standard, and in light of the absence of any discussion of this aspect of the VMT offset provision by the Congress as a whole (either in floor debate or in the

Conference Report), EPA concludes that the appropriate interpretation of section 182(d)(1)(A) requires offseting VMT growth only when such growth would result in actual emissions increases.

Section 182(d)(1)(A) requires that specific, enforceable measures selected by the State be submitted by November 15, 1992, along with a demonstration that they are adequate to hold vehicle emissions within the ceiling described above. It also states that these measures, beyond offsetting growth in emissions, shall be sufficient to allow total area emissions to comply with the RFP and attainment requirements. These requirements create a timing problem of which Congress was perhaps not fully aware. Ozone nonattainment areas affected by this provision are not otherwise required to submit a SIP demonstration which predicts attainment of the 1996 RFP milestone until November 15, 1993, and likewise are not required to demonstrate post-1996 RFP and attainment until November 15, 1994. The EPA does not believe that Congress intended the offset growth provision to advance the dates for these broader submissions. Even without the requirement that the offset growth measures be sufficient to allow overall RFP and attainment in conjunction with other measures, EPA believes that the November 15, 1992 date would not allow sufficient time to develop a set of measures that would comply with the offset growth provision over the long term.

To deal with this timing problem so as to allow a more coordinated and comprehensive planning process, EPA will accept committal SIP revisions for the offset growth requirement under the authority of section 110(k)(4). This will allow States 1 year from EPA conditional approval of the committal revision to submit the full revision containing sufficient measures in specific and enforceable form. This may not stretch the effective deadline for the full revision dealing with the post-1996 period all the way to November 15, 1994. The affected States may need to submit their post-1996 RFP and attainment demonstrations somewhat earlier than nominally required by the provisions establishing the requirements for those demonstrations, so that EPA can assess the adequacy of the growth-offsetting measures against all three criteria specified by the 1990 CAAA. With the extra time allowed through the use of a committal SIP revision, States should be able to use procedures for projecting VMT as given in EPA forecasting and tracking guidance for serious CO areas.

(e) *Employer trip reduction program.* Section 182(d)(1)(B) requires that States with severe and extreme ozone nonattainment areas shall submit a SIP revision requiring employers with 100 or more employees in such areas to implement programs to reduce work-related vehicle trips and miles traveled by employees. Guidance on the implementation of the employee trip reduction program will be provided in a supplement to this general preamble.

6. Extreme Areas

Extreme areas are required to meet all severe area requirements, unless otherwise noted, as well as the following additional requirements.

(a) *Major stationary source definition.* For ozone nonattainment areas classified as extreme, the terms major source and major stationary source, for purposes of the NSR program and the RACT requirement for major non-CTG sources, include any stationary source, or group of sources, located within a contiguous area and under common control that emits or has the potential to emit at least 10 tons per year.

(b) *RACT.* Section 182(e) governs extreme areas. In these areas, the same RACT requirements apply as for the severe ozone nonattainment areas. However, the major source cutoff for non-CTG sources is reduced to 10 tons per year. As in the other areas, this lesser cutoff could result in the need for additional non-CTG RACT rules in cases where no existing CTG applies to a source in the area emitting above 10 tons per year, or an existing CTG for the source category subject to a 10-ton-per-year cutoff applies only to sources above a higher cutoff. Rules for these sources would be subject to the same schedule and requirements of non-CTG RACT specified by section 182(b)(2)(c) (i.e., rules are due by November 15, 1992 for major sources not covered by a new or expected CTG).

(c) *NSR*— (1) *Offset ratio.* For the purpose of satisfying the emissions offset reduction requirements of section 173(1)(A), the emissions offset ratio is the ratio of total actual emissions reductions to total increased allowable emissions of such pollutant(s) from the new or modified source. For an extreme ozone nonattainment area, the emissions offset ratio is at least 1.5 to 1, unless the State requires all existing major sources in the nonattainment area to use BACT as defined in section 169(3), in which case the emissions offset ratio shall be at least 1.2 to 1.

(2) *Special NSR rules.* For the purposes of determining the applicability of the NSR permit requirements under section 173(a), the de minimis rule in section 182(c)(6) and the special rules in section 182(c) (7) and (8), as discussed above for serious and severe areas, do not apply in extreme ozone nonattainment areas.

(3) *Modifications in extreme areas.* For modifications of major stationary sources located in extreme areas, the 1990 CAAA eliminate the concept of de minimis altogether for the purposes of determining a major modification. New section 182(e)(2) provides that any physical change of, or change in the method of operation, at the source that results in any increase in emissions from any discrete operation, unit, or other pollutant-emitting activity at the source generally must be considered a modification subject to the part D NSR permit requirements.

Section 182(e)(2) does, however, provide for an exemption from section 173(a)(1) offset requirements if the owner or operator of the major stationary source agrees to offset any proposed increase by a greater amount of onsite reduction in emissions from other discrete operations, units, or activities at an internal offset ratio of 1.3 to 1. In addition, this new section stipulates that the offset requirements do not apply in extreme areas if the modification consists of installing equipment required to comply with the applicable implementation plan, permit, or the Act itself.

(d) *Clean fuels for boilers.* Section 182(e)(3), "Use of Clean Fuels or Advanced Control Technology," applies to certain boilers in extreme ozone nonattainment areas. The State is required to submit a SIP revision by November 15, 1993 that requires affected boilers to use either clean fuels or advanced control technology by November 15, 1998. Affected boilers are individual new, modified, or existing electric utility, industrial, or commercial/institutional boilers that emit more than 25 tons per year of No_x. The Act specifies, for purposes of this section, that clean fuels are "natural gas, methanol, or ethanol (or a comparably low polluting fuel)," advanced control technology generally means "catalytic control technology or other comparably effective control methods," and the clear fuel must be "used 90 percent or more of the operating time."

A boiler should generally be considered as any combustion equipment used to produce steam. This would generally not include a process heater that transfers heat from combustion gases to process streams, a waste heat recovery boiler that is used to recover sensible heat from the exhaust of process equipment such as a

combustion turbine, or a recovery furnace that is used to recover process chemicals. Boilers used primarily for residential space and/or water heating are not affected by this section.

Only boilers that actually emit more than 25 tons per year of NO_x are affected. Emissions vary from year to year, however, making applicability difficult to determine. Boilers with rated heat inputs of greater than 10–20 million Btu generally have the potential to exceed the 25-tons-per-year limit depending on the fuel type. A source with these high rated heat inputs should therefore be considered affected unless its federally enforceable permit specifically restricts NO_x emissions below 25 tons per year from each boiler. Boilers with rated heat inputs less than 10 million Btu which are coal-fired and less than 15 million Btu which are oil-or gas-fired, may be considered de minimis and exempt from these requirements since it is unlikely that they will exceed the emissions limit, and those few that do will emit very little in the aggregate. The State is free to impose more stringent requirements.

(e) *TCM's during heavy traffic hours.* Section 182(e)(4) (in Title I) authorizes the SIP's for extreme areas to contain provisions establishing TCM's applicable during periods of heavy traffic that reduce the use of high polluting or heavy-duty vehicles. The section states that this authority is granted notwithstanding any other provision of law.

In contrast, section 246(h) requires the Administrator to promulgate regulations to ensure that certain TCM's including time-of-day or day-of-week restrictions and similar measures that restrict vehicle usage, do not apply to any clean-fuel vehicles that meet the requirements of the title II clean-fuel vehicle fleet program. That section states that it applies notwithstanding title I.

The EPA believes that these two provisions can be harmonized by interpreting section 246(h) as allowing only regulations that impose traffic controls on vehicles other than heavy-duty, clean-fuel fleet vehicles. The EPA believes that controlling the nonclean-fuel, heavy-duty fleet vehicles along with all nonfleet, heavy-duty vehicles will effectively reduce congestion and emissions during peak traffic conditions. Sections 182(e)(4) and 246(h) can thus be harmonized by allowing SIP's for extreme areas to include traffic controls on high polluting and most heavy-duty vehicles, but not on heavy-duty, clean-fuel fleet vehicles that have been exempted under EPA regulations promulgated pursuant to section 246(h).

The EPA intends to promulgate its regulations on the fleet program transportation control exemptions shortly. These regulations will address the eligibility of fleets for the TCM exemptions. States may at any time submit TCM's that apply to high polluting or heavy-duty vehicles not subject to the clean-fuel fleet program in extreme areas during periods of heavy traffic.

(f) *New technologies.* The Act recognizes that extreme areas may have to rely to a certain extent on new or evolving technologies to meet certain of the emissions reduction requirements. The relatively long time between developing the initial SIP and attaining the NAAQS, and the degree of emissions reductions needed to attain the standard, guarantees that some control technologies will not be fully demonstrated by the time of SIP development. These measures would include those that may anticipate future technological developments as well as those that may require complex analyses and decision making and coordination among a number of government agencies. Section 182(e)(5) allows the Administrator to approve an extreme area SIP and attainment demonstration that anticipate development of new control technologies, or improvement of existing control technologies if the SIP satisfies the following criteria:

(1) The plan containing the demonstration of attainment must identify all measures, including the long-term measure(s) for which additional time would be needed for development and adoption.

(2) The plan must show that the long-term measure(s) cannot be fully developed and adopted by the submittal date for the attainment demonstration and must contain a schedule outlining the steps leading to final development and adoption of the meaure(s).

(3) The plan must contain commitments from those agencies that would be involved in developing and implementing the schedule for the measure.

(4) The plan must contain a commitment to develop and submit contingency measures (in addition to those otherwise required for the area) that could be implemented if the measure is not developed or if it fails to achieve the anticipated reductions.

(5) The long-term measure(s) must not be needed to meet any emissions reductions requirements within the first 10 years after enactment. The State must submit its contingency measures no later than 3 years before the original long-term measure was to have been implemented. The measures must be adequate to produce emissions reductions sufficient, in conjunction with other approved plan provisions, to achieve the periodic emissions reductions and to attain the ozone NAAQS by the applicable dates. If the Administrator determines that the extreme area has failed to achieve an emissions reductions requirement set forth in section 182 (b)(1) or (c)(2) and that such failure is due in whole or part to an inability to fully implement provisions (related to new technologies) described in section 182(e) (1 through 4) and approved pursuant to section 182(e)(5), the Administrator will require the State to implement the contingency measures to the extent necessary to ensure compliance with the emissions reduction requirements of section 182 (b)(1) and (c)(2). The EPA will set a schedule for implementing contingency measures upon making a finding of failure to meet a milestone.

(g) *Milestone failures (economic incentive programs).* Under section 182(g)(5), if the State fails to submit a compliance demonstration for any extreme area as required by section 182(g)(2), or if the area has not met an applicable milestone as required by section 182(g)(1), the State shall submit a plan revision to implement an economic incentive program (as described in section 182(g)(4)) within 9 months of such failure. The EPA urges the State in this instance to initiate the development of an economic incentive program as soon as it can reasonably define the objectives and scope of an appropriate program, without waiting until such a failure occurs. The EPA belives that early initiation is important so as to allow for sufficient time to develop, implement, and evaluate the effectiveness of the program. Economic incentive programs are discussed in more detail in section III.H.3.

7. Nonclassifiable Nonattainment Areas

(a) *General.* Nonclassified ozone areas consist of transitional, submarginal, incomplete/no data areas. An area is considered transitional under section 185 if it was designated nonattainment both prior to enactment and (pursuant to section 107(d)(1)(C)) at the time of enactment, and did not violate the primary NAAQS for ozone over the 3-year period 1987–1989 (i.e., measured equal to or less than 1.0 exceedances per year based on a full set of quality-assured data from a properly sited monitor(s)). Submarginal areas fall into one of two categories that arise under the provisions of the 1990 CAAA.

This situation exists due to the adjustment for missing or incomplete data when calculating expected exceedances. The first category (Category I) consists of areas presently designated nonattainment that are violating the ozone standard. The second category (Category II) consists of areas designated attainment at enactment that are violating the ozone standard. Finally, if an area retained its nonattainment designation at enactment (under section 107(d)(1)(C)) but adequate data are not available to indicate whether one or more violations of the standards have occurred, the area is considered an incomplete data or no data area.

Section 185A specifically exempts transitional areas from subpart 2 requirements until December 31, 1991. However, the CAAA are silent on whether such areas should be exempt from subpart 1 requirements as well. The CAA provide no specific guidance for submarginal and incomplete/no data areas concerning applicable requirements for these categories. Subpart 1 contains general SIP planning requirements, and EPA believes that subpart 2 is not applicable to submarginal and incomplete/no data areas. Nevertheless, because these areas are designated nonattainment, some aspects of subpart 1 necessarily apply. The EPA's interpretation of the section 172(c) requirements for these areas is given below. Under section 172(b), applicable revisions to the SIP are due 3 years from designation under section 107(d).

(1) *RACT/Reasonably available control measures (RACM)*—(i) Transitional areas. To satisfy section 172(c)(1), transitional areas (section 185A) that continued to show no violations as of December 31, 1991 must ensure, at a minimum, that any deficiencies regarding enforceability of an existing rule are corrected. While section 185A exempts transitional areas from all Subpart 2 requirements until December 31, 1991, and that exemption continues until the area is redesignated to attainment (assuming the area satisfactorily demonstrated attainment by December 31, 1991), States should be aware that in order to be redesignated to attainment such areas must correct any RACT deficiencies regarding enforceability.

(ii) Incomplete/no data areas. Since it is not known whether these areas are violating the standard or not, it is EPA's position that requiring RACT corrections is unreasonable. However, like transitional areas, incomplete/no data areas must correct any RACT deficiencies regarding enforceability of existing rules in order to be redesignated to attainment.

(iii) Sub-marginal areas. Since it is known that sub-marginal areas are violating the standard (only their design value is lower than the threshold for which an area can be classified), it is EPA's position that such areas must make the same RACT corrections (if previously required) as marginal areas. Like marginal areas, sub-marginal areas are exceeding the ozone standard and therefore should apply the same level of RACT as was required before enactment. Under section 172(b), these RACT corrections must be included in the SIP revision due November 15, 1993. However, to the extent an area is subsequently reclassified to one of the nonattainment classifications in Table 1 of section 181, it will be subject to the time schedule of subpart 2.

(2) *Attainment demonstration.* Section 182(a)(4) specifically exempts marginal areas from any attainment demonstration requirement. Since marginal areas are exempt from this requirement, it would be unreasonable to apply this requirement to an area that was either not violating the standard or recorded a design value so low as to be unclassifiable. Therefore, EPA will presume that the existing SIP requirements and any existing and future Federal requirements (e.g., the title II rules) wil be sufficient to provide for attainment in these areas.

(3) *RFP.* A reasonable further progress requirement assumes a long nonattainment period or a large amount of reductions required to attain. Because a transitional, submarginal, or incomplete data area is or is likely to be already in or near attainment, EPA will treat a SIP that includes NSR and RACT corrections (if needed) coupled with Federal measures, as meeting the RFP requirement.

(4) *Emissions inventory.* An emissions inventory is specifically required under section 172(c)(3), and is not tied to an area's proximity to attainment. Moreover, even if these areas are already attaining or near attainment, they will need such an inventory to develop an approvable maintenance plan under section 175A.

(5) *NSR.* Like the emissions inventory requirement, the NSR requirement is not tied to an area's proximity to attainment and therefore exempting a nonattainment area from NSR requirements would clearly violate the Statute. Furthermore, the new NSR program is one of the CAAA's major bulwarks against further deterioration of the Nation's air quality. Therefore, all nonattainment areas, including submarginal, transitional and incomplete/no data areas, are required to adopt NSR programs meeting the requirements of section 173, as amended.

(6) *Monitoring.* Section 172 (b) and (c) explicitly states that nonattainment areas must meet the "applicable" monitoring requirements of section 110(a)(2).

(7) *Contingency measures.* Since submarginal and incomplete/no data areas generally present less serious ozone problems than marginal areas, which are expressly exempted from the requirement for contingency measures under section 182(a), contingency measures are not likely to be necessary to assure attainment for these areas, EPA believes it appropriate not to apply the requirement for contingency measures for these areas under a de minimis approach. The approach is authorized by *Alabama Power* v. *Costle*, 636 F.2d 323, 360–61, 404–05 (DC Circuit 1980), which held that EPA may exempt de minimis actions from a statutory requirement when the burdens of regulation would yield little or no value.

(8) *Attainment dates for nonclassifiable areas.* Section 172(a)(2) requires an attainment date of no later than 5 years from an area's designation as nonattainment. For areas designated nonattainment under section 107(d)(1)(C)(i) (pre-enactment nonattainment areas), the attainment date is November 15, 1995. For newly designated areas, the attainment date will be 5 years from the effective date of the nonattainment designation. For submarginal and incomplete/no data areas that fail to attain in 5 years, EPA is considering one or more of the following options in enforcing a 5-year attainment date for nonclassifiable areas:

(i) If an area fails to attain 5 years from designation, the area would be bumped up to marginal or a classification commensurate with the area's design value if the design value is at least 0.121 ppm.

(ii) If an area fails to attain 5 years from designation either due to incomplete/no data or a submarginal design value, the area retains its status but EPA will tighten subpart 1 requirements. This could include further RACT measures, or possibly a basic I/M program.

The following sections further discuss the applicability of the Act's requirements to each of the three types of nonclassifiable areas.

(b) *Transitional.* A transitional area will have to meet the requirements described below.

(1) *Section 185A requirements.* The Administrator announced in the November 6, 1991 **Federal Register** which ozone nonattainment areas did not violate the NAAQS during the 36-month period from January 1, 1987 to December 31, 1989. For such areas, the requirements under subpart 2 (of title I part D), including any RACT fix-up obligations, were suspended until December 31, 1991. By June 30, 1992, the Administrator will determine on the basis of the area's average number of exceedances whether the area had in fact attained the NAAQS for ozone by December 31, 1991. Where the Administrator determines that the area attained the NAAQS, the State must submit a maintenance plan for the area within 12 months of such determination. In addition, the other four redesignation requirements under section 107(d)(3)(E) must be met, including RACT fix-ups regarding enforceability.

(2) *Redesignation of transitional areas.* The State must submit complete monitoring data for the transitional area that supports redesignation to attainment (i.e., showing no measured violations during the 36-month period from January 1, 1989, to December 31, 1991) in sufficient time for the Administrator to make a finding of attainment and to promulgate such finding by June 30, 1992. If the Administrator finds the area has attained, the State must submit a maintenance plan within 1 year of the finding along with documentation to support the conclusion that the redesignation requirements under section 107(d)(3)(E) have been met. For a discussion of the specific State actions required in order to satisfy the five redesignation requirements, see "Redesignations" under section III.H.5 of this document.

(3) *NSR.* By November 15, 1992, all nonattainment areas, including transitional areas that have failed to attain, must submit rules to implement the new part D NSR requirements under section 173.[8] In the meantime, the existing part D NSR requirements will remain in effect until the area is redesignated to attainment, at which time the PSD requirements of part C will apply. If the area does not have an approved part D plan for NSR permitting and it issues a permit for a major stationary source or major modification in the transitional area during the interim period before redesignation, the State permit should comply with the requirements in 40 CFR part 51, appendix S.

(4) *Failure to attain.* If a transitional area violates the NAAQS during the 3-year period from January 1, 1989 to December 31, 1991, then it shall be classified in accordance with Table 1, section 181(a). Upon classification, the area shall continue to be subject to the general requirements under subpart 1 not addressed in subpart 2, and those specific provisions under subpart 2 appropriate to the area's classification that would have applied had the area been so classified at the time of the notice of other nonattainment areas' initial classifications under section 181(a)(3). For example, such an area would need to submit RACT fix-up requirements of section 182(a)(2)(A) within 6 months of classification. The Administrator may, however, adjust any applicable deadlines (other than attainment dates) to the extent that such adjustment is necessary or appropriate to ensure consistency among the required submissions.

If complete monitoring data reveal that a transitional area is violating the standard but its design value is less than 0.121 ppm [9]—below the design value ranges in Table 1 (section 181[a])—then the area will be considered submarginal. Refer to the category below entitled "Submarginal."

(c) *Submarginal*— (1) *Category I—(Previously designated nonattainment).* If the area's average expected exceedance rate was more than 1.0 during the 3-year period 1987–1989, it is violating the standard. However, if the area's design value was less than 0.121 ppm, below the threshold for which it can be classified as marginal, the area is submarginal.

(2) *Category II—(New nonattainment areas).* Category II areas are those areas designated unclassified/attainment on the date of enactment, but with an average expected exceedance rate more than 1.0 during the 3-year period 1987–1989. These areas are violating the standard, yet their design values were less than 0.121 ppm, below the threshold for which they can be classified as marginal under Table 1 section 181(1). The EPA also describes such areas as submarginal.

(3) *Requirements.* As discussed above, all nonattainment areas, including submarginal areas, are subject to several of the requirements in subpart 1. Specifically, section 172(b) requires a SIP revision within 3 years of designation that must meet several requirements, in particular, NSR.

If a State submits a request for redesignation to attainment, then a proper and adequate maintenance plan, as defined in section 107(d)(1)(E), must be submitted.

(4) *Failure to attain.* If, at some time in the future (before the area has demonstrated that it has met the five requirements for redesignation under section 107(d)(3)(E)), a submarginal area violates the NAAQS and the design value is equal to or exceeds 0.121 ppm, it is EPA's position that the area will at that time be classified under Table 1, section 181(a), according to its design value.

Once classified, the area will continue to be subject to those subpart 1 requirements not addressed in subpart 2 and the specific provisions of subpart 2 determined by its classification. Under section 182(i), these provisions apply as if the area had been so classified at enactment, except the EPA may adjust any applicable deadlines (other than attainment dates) to the extent necessary or appropriate to assure consistency among the required submissions.

(5) *NSR.* By November 15, 1992, all ozone nonattainment areas, including submarginal areas (both Category I and Category II) must submit rules in approvable form to EPA to implement the new NSR requirements under section 173. In the meantime, the existing part D NSR requirements remain in effect.

If a submarginal area does not have an approved part D NSR permitting program, and the State wishes to issue a permit for a major stationary source or major modification in that area, the State permit must comply with the requirements of 40 CFR part 51,

[8] If a transitional area has not recorded any violations by December 31, 1991, and is in the process of developing a maintenance plan per section 185A, then EPA may not require nonattainment NSR rules. However, these areas must continue to apply their existing NSR program or comply with the NSR permitting requirements of 40 CFR part 51, appendix S. Prior to redesignation, these areas also must adopt and be prepared to implement a permitting program that satisfies the requirements of part C and EPA's regulations implementing the PSD program. Areas should consider the need for offsets under the part C program to insure that new sources do not "cause or contribute" to an increase in pollutant levels that would take the area out of compliance. If the area is found to be out of compliance and the statutory deadlines for adopting amended part D permitting rules for the pollutant in question have passed, EPA may impose a construction ban pursuant to section 113(a)(5) until such time as the area adopts a part D program satisfying the NSR requirements of the CAAA.

[9] Readers are reminded that for purposes of determining exceedances, an exceedance is a daily 1-hour maximum which is equal to or greater than 0.125. In order to be classified under Table 1 section 181(a)(1), a design value must be equal to or greater than .121.

appendix S, until the State adopts the necessary part D NSR provisions.

(6) *Redesignation to attainment.* In order to be redesignated to attainment, the State must demonstrate that the five redesignation requirements (i–v) under section 107(d)(3)(E) have been met. See section III.H.5. which describes the specific actions that will determine compliance with each of these requirements.

(d) *Incomplete data or no data*—(1) *Requirements.* As discussed above in the Introduction, all nonattainment areas, including incomplete data or no data areas, are subject to the requirements in subpart 1. Specifically, section 172(b) requires a SIP revision within 3 years of designation.

If a State submits a request for redesignation to attainment, then a proper and adequate maintenance plan, as defined in section 107(d)(1)(E), must be submitted. The discussion under "Redesignation" in section III.H.5 of this preamble describes the specific actions that will determine compliance with each of these requirements.

(2) *NSR.* By November 15, 1992, all ozone nonattainment areas, including incomplete or no data areas, must submit rules to implement the new NSR requirements of sections 172(c)(5) and 173. In the meantime, the existing part D NSR requirements remain in effect. If the area does not have an approved part D NSR permitting program, and the State issues a permit for a major stationary source or major modification in the area, the State permitting program should comply with the requirements in 40 CFR part 51, appendix S, until the new part D NSR requirements become effective.

8. Transport Areas

Section 176A allows the Administrator to establish a transport region covering multiple States whenever interstate transport of pollutants contributes significantly to violations of the NAAQS. Section 184(a) specifically created at enactment, by operation of law, an ozone transport region comprising the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont, and the CMSA that includes the District of Columbia. Section 184(b) contains the specific requirements for States in the ozone transport region(s).

(a) *Specific requirements.* States within ozone transport regions must revise their SIP's to include specific measures by November 15, 1992 in the case of the region established by section 184(a), or within 9 months of inclusion in a transport region in the case of a State subsequently included in a transport region under section 176A. The discussion here will focus on the region established under section 184(a), and, for convenience, that region will be referred to as the Northeast transport region or just the transport region. If other ozone transport regions are established under section 176A, States in these regions must also adopt and implement the specific controls discussed below.

(1) *Enhanced I/M.* A State within the transport region must adopt a program pursuant to section 184(b)(1)(A) meeting the requirements of section 182(c)(3), "Enhanced Vehicle Inspection and Maintenance Program," for any MSA (or portion of an MSA) within the State that has a population of 100,000 or more. The Act does not address the census year for this population; EPA believes the year of enactment (1990) is the correct year to use in this case.

(2) *RACT on VOC sources.* Each State in a transport region must adopt VOC RACT regulations for sources located within that portion of the State included in a transport region.[10] Under section 184(b)(1)(B), the RACT rules that apply to sources for which a CTG was issued before or after enactment must be submitted by November 15, 1992.

Section 184(b)(1)(B) specifies that the State must submit by November 15, 1992, a plan containing RACT rules for sources covered by a CTG issued after enactment. However, many past-enactment CTG's will not be issued by November 15, 1992; indeed, Congress did not contemplate that all would be issued until November 15, 1993 (see section 183(a)). For that reason it would be impossible for a State to submit actual RACT rules reflecting consideration of the post-enactment CTG's by November 15, 1992. Therefore, in order to meet the submittal requirement, the State must submit an enforceable commitment to adopt and implement RACT rules for sources covered by CTG's issued after enactment in accordance with the schedules contained in each of the CTG's. The CTG document in Appendix E lists the 11 CTG's EPA plans to issue under section 183. The States should refer to that document.

Furthermore, section 184(b)(2) provides that VOC sources with the potential to emit at least 50 tons per year are effectively subject to the moderate area requirements. Therefore, EPA believes that the schedule for submitting and implementing these RACT rules should be consistent with the requirements of section 182(b)(2) which requires submittal by November 15, 1992 and implementation no later than May 31, 1995.

(3) *NSR for VOC sources.* Since section 184(b)(2) requires that stationary sources of VOC having the potential to emit at least 50 tons per year shall be considered major sources and subject to the same requirements that apply to major sources in ozone areas classified as moderate (section 182(b)), the State must also adopt rules to apply the part D NSR permitting provisions [11] for ozone statewide, unless a portion of the State has been excluded from the transport region under section 176A(2). These rules, which are due by November 15, 1992, include requirements that a new or modified major stationary source will apply controls representing LAER, and that the source will obtain an emissions offset prior to operation. The emissions offset is based on the ratio of actual emissions reductions of VOC to total allowable increases in emissions that would result from construction and operation of the source. In this case, the required ratio is at least 1.15 to 1 (the ratio applicable to moderate ozone areas). It should be noted that in these areas classified as serious or higher, a higher offset ratio would apply. State rules must ensure that the offsets obtained for a new or modified stationary source will be consistent with any State or regional attainment strategies. All NSR requirements of part D must be met for permit issuance.

In nonattainment areas within the transport region, offsets must generally be obtained from the nonattainment area where the source wishes to locate except as allowed by section 173(c) of the amended Act. Section 173(c) allows offsets from other nonattainment areas if the area has equal or higher nonattainment classification than the area where the source is located, and emissions from such other area contribute to a violation of the standard

[10] Section 176A(a)(2) provides a process for modifying the boundaries of a transport region. However, EPA will not allow a delay in the adoption of measures under section 184(b) due to a State request to exclude a portion of the State from the transport region. The EPA expects the States within a transport region and the transport commission to consider requests for deletion of areas quickly so as to minimize the uncertainty States may have regarding plan submittals due 2 years from enactment (for the Northeast transport region) or 9 months after subsequent inclusion of an area and transport region. Although section 184(b) does not specifically discuss how much less than the entire State can be subject to the requirements, EPA interprets section 176A as establishing a process whereby a protion of a State can be removed from the region and exempted from the requirements.

[11] See section III.C for a complete discussion of the NSR provisions.

in the nonattainment area in which the new source is located. For attainment areas within the transport region, guidance for location of offsetting emissions at 40 CFR part 51, appendix S, should be followed. Appendix S specifies that emissions offsets for VOC may be obtained from sources located anywhere within the broad vicinity of the proposed new source. Generally, VOC offsets may be obtained if within the same Air Quality Control Region (AQCR) as the new source or from other areas that may be contributing to the ozone problem at the proposed new source location. It is desirable to obtain offsets from sources located as close to the proposed new source site as possible. If the proposed offsets would be from sources located at greater distances from the new source, the reviewing authority should increase the ratio of the required offsets and require a showing that nearby offsets were investigated and reasonable alternatives were not available.

The PSD provisions of part C (as well as the nonattainment provisions discussed above) continue to apply to stationary sources in the areas designated attainment or unclassifiable that are within the ozone transport region. Title I does not exempt these sources from the PSD requirements. Likewise, the major stationary source thresholds defined in the PSD rules continue to apply when determining PSD applicability.

(4) *Gasoline vapor recovery.* Section 184(b)(2) requires the Administrator to complete a study identifying control measures capable of achieving emissions reductions comparable to those achievable through vehicle refueling controls contained in section 182(b)(3) by November 15, 1993. All areas within a transport region are then required, within 1 year of completion of this study, to adopt and submit as an SIP revision the comparable measures or the section 182(b)(3) Stage II vapor recovery measures. However, pursuant to section 182(b)(3), ozone nonattainment areas classified as moderate or above must adopt and submit Stage II rules by November 15, 1992. Although moderate nonattainment areas that are located within an ozone transport region may become exempt from the section 182(b)(3) requirement due to the adoption of onboard regulations (see section 202[a][6]) such areas will remain subject to the transport requirement of section 184(b)(2). The exemption and waiver provision of section 202(a)(6) applies only to the section 182(b)(3) Stage II requirement, not to he the requirement of section 184(b)(2) to adopt Stage II or measures identified as achieving equivalent reductions. The transport provision is a separate requirement that focuses not on Stage II, but on means to get reductions equivalent to what would be achieved under section 182(b)(3).

(b) *Other requirements.* The transport region or portions thereof may also be subject to additional control requirements resulting from recommendations from the transport commission under section 184(c). If EPA approves a recommendation from the commission submitted under section 184(c), EPA will issue a finding that the SIP for the appropriate State(s) is inadequate and must be revised within 1 year to incorporate the recommendations of the transport commission.

Each ozone nonattainment area located within the transport region is still subject to the applicable requirements for a demonstration of attainment under section 182 (b)(1)(A) and (c)(2). The EPA realizes that in some cases certain demonstrations will be complicated by the RFP requirements and attainment deadlines that apply to areas of different classifications.[12] For example, a moderate area located within the transport region is still subject to the 6-year attainment deadline and the section 182(b)(2)(A) requirement to provide annual emissions reductions in its plan to attain by the deadline. However, this area is (at least, presumptively) being affected by transport from another area(s) and is, as well, possibly affecting other areas, itself. If the "other" areas that are affecting air quality levels in this moderate area are classified as serious or severe, those areas will be reducing their emissions over a longer time frame in order to attain the standard. That is, these "other" areas could still be having significant effects on the moderate area at the time when the moderate area must demonstrate attainment.

As discussed within the context of demonstrations for moderate areas, EPA believes that this situation is somewhat analogous to the situations addressed in section 182(h) for RTA's and in section 182(j) for multi-State ozone nonattainment areas. In these cases, the 1990 CAAA recognize that at some point, an area being affected by emissions from another area(s) may not be able to achieve sufficient emissions reductions on its own to demonstrate attainment. In these cases, the area is relieved from certain requirements in the CAAA that would require additional controls. There is no explicit recognition in the CAAA of this occurring in other situations.

In general, two situations exist in which an area might be subject to additional emissions reductions requirements related to the demonstration of attainment. In the first, an area might be receiving such high levels of transport that even if it reduced its emissions dramatically (e.g., totally eliminated its own emissions), the incoming ozone and precursors would be high enough to continue to cause violations of the standard beyond the applicable attainment date. In the second situation, the area might be able to achieve additional reductions (beyond those required under section 182), but even where those additional reductions could be achieved to demonstrate attainment, the question arises whether it is equitable to require those reductions or to allow more time for the reductions in the "upwind" area to take place. As described above, however, the statute provides no express relief for these situations. Thus, where the demonstration of attainment is complicated by transport between two areas of different classifications, the State is still responsible for developing and submitting demonstrations which show that the standard will be attained by the applicable date. In other words, the State must provide for sufficient emissions reductions on a schedule that will ensure attainment in its moderate area, for example, within 6 years after enactment. The EPA believes that the wording in section 182(b)(1)(A)(i) requires the State to develop a plan providing such emissions reductions. The area does not have the option of requesting to be reclassified to the next higher classification.

At this time, EPA is not sure to what degree the situation described above is likely to occur or know of any real cases where this will be a problem. If such a situation were to occur, EPA intends to look at the facts specific to that area. Considerations would include the results of the area's attainment analyses along with any region-wide modeling results in evaluating available SIP approval options. When such areas develop the demonstration of attainment due in November 1994, they should provide a comprehensive assessment of the impacts of all control measures being implemented in both the local and upwind areas. States should clearly show the extent to which the downwind

[12] The discussion here regarding areas within an existing transport region also applies to areas that are impacted by ozone and precursor transport but are not yet in transport regions. Therefore, much of this discussion also occurs under section III.A.3.(b) for moderate areas.

area is dependent on upwind strategies while fully meeting its own requirements associated with its classification.

9. Multi-State Ozone Nonattainment Areas

Section 182(j) defines a "multi-State ozone nonattainment area" as a single ozone nonattainment area that covers more than one State. Section 182(j)(1)(A) and (B) set certain requirements for such areas. First, each State in a multi-State ozone nonattainment area must take all reasonable steps to coordinate the implementation of the required revisions to SIP's for the given nonattainment area (section 182(j)(1)(A)). Next, section 182(j)(1)(B) requires the States to use photochemical grid modeling or any other equally effective analytical method approved by EPA for demonstrating attainment. The EPA is prevented by section 182(j) from approving any SIP revision submitted under that section if a State has failed to meet the above requirements.

A State within a multi-State ozone nonattainment area that fails to provide a demonstration of attainment for that State's portion of the area is allowed by section 182(j)(2) to petition EPA to determine whether such State could have demonstrated attainment but for the failure of one or more States in the area to adequately implement the required measures under section 182 for the given area. If EPA so finds, then the sanctions provisions under section 179 shall not apply to the State whose failure to make an adequate attainment demonstration was due to failure by other States to implement section 182 measures.

Pursuant to section 182(j)(1)(A), EPA is calling on each multi-State ozone nonattainment area to develop a joint work plan as evidence of early cooperation and integration. The work plan must include a schedule for developing the emissions inventories, the 15 percent progress requirement SIP revision (if applicable), the 3 percent per year progress requirement SIP revision (if applicable), and the attainment demonstration for the entire multi-State area. Each State within a multi-State ozone nonattainment area is responsible for meeting all the requirements relevant to the given area.

Marginal multi-State ozone nonattainment areas are excluded from undertaking photochemical grid modeling for submittal in attainment demonstrations by section 182(a)(4), which excludes any marginal area from the requirement to submit attainment demonstrations. (The EPA believes that the section 182(a)(4) exemption supersedes the applicability of the multi-State area modeling requirement for marginal areas.)

Moderate and above multi-State ozone nonattainment areas must submit attainment demonstrations which use photochemical grid modeling (or equivalent). This section 182(j)(1)(B) requirement can be met through application of EPA approved modeling techniques for SIP revisions as recommended in the current version of EPA's "Guideline on Air Quality Models (Revised)." The Urban Airshed Model is recommended for modeling applications involving entire urban areas. Care should be taken to coordinate strategies and assumptions in a modeled area with those in other, nearby modeled areas in order to ensure that consistent, plausible strategies are developed.

Section 182(j) requires States in which a moderate multi-State nonattainment area occurs to use photochemical grid model to demonstrate that prescribed controls are sufficient to attain the NAAQS. The section is silent concerning the timing for such an analysis. However, one of the distinctions between section 182(b) and section 182(c) is that serious areas (for which grid models are required) are given an extra year (until November 1994 instead of November 1993) to submit a SIP reflecting an attainment demonstration. This is in recognition of the time required to gather data to support to perform a grid modeling analysis. Thus, a reading of section 182 (b), (c), and (j) implies that the requirement that multi-State moderate nonattainment areas perform grid modeling effectively extends for 1 year (from November 1993 to November 1994), the deadline for moderate multi-State areas to submit a SIP containing an attainment demonstration. Stated differently, the requirement for grid modeling imposed on multi-State moderate areas by section 182(j) supersedes the requirement to have the November 1993 SIP transmittal contain an attainment demonstration. Instead, for practical reasons, the requirement imposed by section 182(j) implies a need for a November 1994 SIP revision reflecting provisions needed to attain the NAAQS as determined through a grid modeling analysis.

The effect of this interpretation of section 182 (b) (c) and (j) is that the timing for SIP submittals in moderate inter-State nonattainment areas is identical to that in serious nonattainment areas. That is, a SIP revision providing for 15 percent reduction in VOC emissions from 1990 through 1996 is due by November 1993. A second SIP revision containing necessary provisions to demonstrate attainment of the NAAQS is due in November 1994.

B. Carbon Monoxide

The 1990 CAAA create a new classification structure for CO nonattainment areas based on the severity of the nonattainment problem. For each area classified under this section, the attainment date shall be as expeditious as practicable, but no later than the date in the following table. The classification scheme is as follows:

Area classification	Design value, ppm	Primary standard attainment date
Moderate	9.1-16.4 ppm	December 31, 1995.
Serious	16.5 and above.	December 31, 2000.

As provided in part D subpart 3, Emission Inventories, rules for I/M, NSR rules for areas with a design value greater than 12.7 ppm, and certain other planning or control measures are required within 2 years after enactment (November 15, 1992) for both previously and newly designated nonattainment areas. If an area's boundaries are subject to adjustment under section 107(d)(4)(A)(iv) (for serious CO areas), final designation may be promulgated as late as 14 months after enactment, or March 1992—just 8 months before major rules (e.g., I/M, NSR) and the emission inventory must be submitted. These nonattainment areas should not delay their adoption of rules or preparation of inventories while the boundary determinations are proceeding. Rather, EPA believes these areas should be prepared to readily adopt rules and complete their emission inventories for the entire MSA/CMSA, should it be concluded that the nonattainment boundaries will be the MSA/CMSA. The EPA will require those submittals, which are due by November 15, 1992, to address the entire nonattainment area.

In addition to the two classifications, some nonattainment areas do not fit into the classification scheme and are nonclassified areas. The CO section will describe the requirements for all areas (moderate and serious and the special classifications) in much the same way as the 1990 CAAA describes the requirements. The requirements are additive (i.e., a serious area has to meet all moderate requirements and all serious requirements, etc.). Requirements discussed for moderate areas will be repeated for serious areas only if the requirements are different.

1. Moderate Areas 12.7 ppm and Below

(a) *Emission inventory.* Section 187(a)(1) requires moderate CO areas to submit by November 15, 1992, "a comprehensive, accurate, current inventory of actual emissions from all sources, as described in section 172(c)(3)." Draft base year inventories must be submitted between January 1, and May 1, 1992. The inventory is defined as the base year inventory and is a "current inventory." The EPA interprets the requirement that the inventory be "current" to mean that it be an inventory for 1990 (year of enactment). The inventory is to address actual CO emissions during the peak CO season for the area (generally the winter months). All stationary point, area, highway/nonhighway mobile, and OCS sources (if any) are to be included in the compilation.

As one of the first steps in developing the base year inventory, the States are to prepare an IPP, which is due in final form to EPA by October 1, 1991. The IPP should include a brief statement of how the State intends to develop, document, and submit its inventory. Another early step in the inventory development process is preparing the point source portion of the base year inventory. Updated guidance for preparing emission inventories was issued in May 1991; however, the point source portion is essentially the same as it was for the post-1987 SIP's. Thus, States should have already begun gathering data on point source emissions. States are encouraged to submit the point source portion of the inventory to EPA as early as possible.

States that have fully completed portions of their base year inventories for 1987, 1988, or 1989 may request EPA approval to update these portions. Otherwise, States will have to prepare a completely new 1990 base-year inventory. Guidance on the procedure to request an update was provided in May 1991 ("Procedures for te Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I [Revised]"). However, for purposes of accuracy and compliance with the goals of the 1990 CAAA, EPA encourages all areas to prepare new 1990 base-year inventories even if they already assembled base-year inventories for 1987/1988/1989.

The EPA issued an updated version of MOBILE4, its mobile source emissions estimation model, in July 1991. The updated version is MOBILE4.1, and it replaces and supersedes its predecessor. States, except for California, are required to use MOBILE4.1 in determining highway mobile-source emissions for all of their base-year emissions inventories under the Act. California should consult with EPA Region IX in determining which mobile model to use. The majority of the enhancements in the revised model are internal to the model and do not directly affect the use for base-year inventory emission factor generation purposes. The reader should refer to EPA's "Emission Inventory Requirements for Carbon Monoxide State Implementation Plans" for more information.

The July 1991 guidance also contains information related to some area and off-highway mobile source categories that may significantly affect how emissions are to be determined. For these categories (railroads and aircraft), States must use the new methodology and develop new emission estimates. The States will also be required to develop new 1990 base-year inventories for highway mobile sources that account for fleet turnover, road construction resulting in changes in VMT patterns, and changes in speed limits. The new 1991 guidance on MOBILE4.1 and off-highway mobile sources guidance on VMT should be consulted for additional detail.

The EPA guidance should also be consulted for information on how to account for rule effectiveness when calculating emissions from stationary sources of CO. Rule effectiveness is a measure of the ability of a regulatory program to achieve all the emission reductions that could be achieved by full compliance with the program by all sources at all times. For the purpose of base-year inventories under the 1990 CAAA, EPA will allow the use of an 80 percent default value but will also give States the option to derive local category-specific rule effectiveness factors within some tightly prescribed guidelines discussed in the guidance.

Finally, the reader should refer to section III.B.6 for additional information related to base year inventories for multi-State nonattainment areas.

By meeting the specific inventory requirements discussed above, the State will also satisfy the general inventory requirements of section 172(c)(3).

(b) *I/M corrections.* Section 187(a)(4) requires States with moderate CO nonattainment areas that already include I/M programs or that were required by the pre-1990 Act to include I/M programs in their SIP's, to submit to EPA immediately upon enactment any revisions necessary to provide for a program no less stringent than that required prior to enactment or committed to in the SIP in effect at the time of enactment, whichever is more stringent. Requirements for these I/M programs are contained in section 182(a)(2)(B). This section requires EPA to review, revise, update, and republish in the **Federal Register** within 1 year of enactment, the guidance for I/M programs required by the Act, taking into consideration the Administrator's investigations and audits of such programs. In short, the moderate areas must maintain existing I/M programs and make corrections to those programs to meet existing I/M policy; when updated policy is published, these areas must submit revisions to address any revised guidance.

More specifically, section 182(a)(2)(B) requires States to meet the basic I/M performance standard that has been in effect since 1977. That performance standard is based on a "model" program design consisting of a centralized progam that annually tests tailpipe emissions on all light-duty vehicles using emission standards for 1981 and later model vehicles of 1.2 percent CO and 220 ppm HC and 20 percent stringency for pre-1981 vehicles. A compliance rate of 100 percent and a waiver rate of zero percent are assumed. States must demonstrate an emission reduction for the I/M program included in the SIP that is at least as great as that produced by the "model" basic program (or the program already included in the SIP, whichever is greater), using the most current available version of EPA's mobile source emission model. The I/M programs are required in the urbanized area portions, as defined by the Bureau of the Census, of the nonattainment area.

The EPA expects to issue the policy for I/M areas in the near future. When published, the policy will state the date when such programs are to be implemented. The EPA intends to allow all areas ample time to adopt and submit required I/M programs, including I/M corrections under section 187(a)(4). States that have both basic and enhanced I/M areas may opt to implement enhanced programs in all affected urbanized areas. States which are only required to implement basic programs must submit SIP revisions for I/M program addressing any revised policy. The guidance will cover the elements of the SIP revision.

As mandated by section 202(m), the Administrator will promulgate regulations requiring manufacturers to install diagnostic systems on all new light-duty vehicles and light-duty trucks. The purpose of these systems is to identify and track emissions-related systems deterioration or malfunction. According to section 202(m)(3), within 2

years of EPA's promulgating regulations requiring States to do so, all States with I/M programs must amend their SIP to provide for inspection of these onboard diagnostics systems. The EPA will issue revised I/M guidance which addresses onboard diagnostic inspections.

(c) *Periodic inventory.* According to section 187(a)(5), moderate CO nonattainment areas are required to submit periodic inventories starting by September 30, 1995, and then every 3 years thereafter until the area is redesignated to attainment. The periodic inventory shall meet the same requirements as the base year inventory. Additional guidance is available on inventory procedures (see section III.A.2.(a)).

By meeting the specific periodic inventory requirements discussed above, the State will also satisfy the general periodic inventory requirements of section 172(c)(3).

(d) *Attainment demonstration.* No attainment demonstration is required for moderate CO areas when the CO design value is 12.7 ppm or below.

(e) *Oxygenated fuels*—(1) *Schedule.* Section 211(m) requires that SIP revisions containing oxygenated fuel requirements be submitted to EPA in adopted form by any State containing all or part of a nonattainment area for CO with a design value of 9.5 ppm or above based on 1988 and 1989 data. Section 187(b) of the Act calls for SIP revisions to implement oxygenated gasoline requirements in certain CO nonattainment areas within 2 years of enactment. Because section 211(m) is more detailed than section 187(b) and applies to a greater number of CO nonattainment areas, the substantive requirements of section 211(m) should be followed in preparing SIP revisions. The design value is to be calculated according to the most recent interpretation methodology issued by the Administrator prior to November 15, 1990, which is contained in June 18, 1990 memorandum from William Laxton, Director, Technical Support Division, to the Regional Division Directors. The statute provides that States with areas having design values of 9.5 ppm or above for any 2-year period after 1989, e.g., 1990 and 1991, have 18 months after such 2-year period or designation as nonattainment, whichever is later, to submit a SIP revision meeting the requirements of this section.

The revision must require that any gasoline sold or dispensed by retailers and wholesale purchasers/consumers in the nonattainment area must contain not less than 2.7 percent oxygen by weight. This oxygen content requirement will also apply to gasoline sold or dispensed by refiners or marketers within the larger of the MSA/CMSA containing the nonattainment area. These gasoline content requirements apply during the time of the year determined by the Administrator to be when the area is prone to high ambient CO concentrations. This yearly period can be expected to be no less than 4 months. The EPA issued proposed guidance on the length of the control periods on July 9, 1991 (56 FR 31151).

States may, at their option, include provisions for marketable oxygen credits in their SIP revisions. Under such a program, gasoline with a higher oxygen content than required could offset gasoline with a lower oxygen content than required. The EPA issued proposed guidelines for such marketable oxygen credit programs on July 9, 1991 (56 FR 31154).

At the request of a State, EPA will consider reducing the time period required for an oxygenated gasoline program. The State must demonstrate that, because of meteorological conditions, a reduced period will ensure that there will be no exceedances of the CO air quality standard outside of such reduced period. The demonstration should include consideration of meteorological conditions, peak periods of CO emissions, and historical ambient air quality data, including peak periods of CO concentrations. The demonstration should use EPA-approved dispersion modeling techniques.

For areas with a design value of 9.5 ppm or more as of November 15, 1990 based on 1988 and 1989 data, the oxygenated gasoline requirements must generally take effect no later than November 1, 1992. For areas which have a design value of 9.5 ppm or greater for any 2-year period after 1989, the oxygenated gasoline requirements must generally take effect no later than November 1 of the third year after the second year of the applicable 2-year period. In both cases, the November 1 date may change based either on EPA's determination of when the area is prone to high ambient concentrations of CO, or on an EPA determination to reduce the control period based on meteorological conditions.

Requirements for oxygenated gasoline need not apply to the attainment area outside of the CMSA or MSA. However, oxygenated gasoline requirements shall continue to apply for nonattainment areas that EPA redesignated as attainment, to the extent needed to maintain the CO standard. The revision shall cover gasoline offered for sale or supply, dispensed, transported, or introduced into commerce.

(2) *Waivers.* The statute provides for a waiver from oxygenated gasoline requirements under certain conditions described below. A waiver from the oxygenated gasoline requirements may be granted to a State which demonstrates to EPA's satisfaction that using oxygenated gasoline would prevent or interfere with the attainment by the area of a NAAQS or a State or local ambient air quality standard for any air pollutant other than CO. A waiver from the oxygenated gasoline requirement may similarly be granted upon demonstration by the State to the satisfaction of EPA that mobile sources of CO do not contribute significantly to CO levels in the area. Finally, EPA may waive for 1 year the effective date of the requirement for oxygenated gasoline in a nonattainment area upon petition from any person asserting that there is an inadequate domestic supply of, or distribution capacity for, such oxygenated gasoline or oxygenate additives necessary to meet the requirements, if EPA finds this assertion to be true. To facilitate EPA review, all claims asserted should be demonstrated and documented in the petition. Upon another petition, EPA may again delay the effective date of the requirement in a nonattainment area for 1 additional year. The EPA issued proposed guidelines for waivers based on inadequate domestic supply of, or distribution capacity for, oxygenated gasoline or oxygen additives on September 3, 1991 (56 FR 43593). These guidelines discuss the contents of such petitions, guidelines for, and decisions on such petitions, as well as other relevant factors.

(f) *NSR.* The part D NSR permit requirements of section 173 apply in CO nonattainment areas. All moderate CO nonattainment areas with a design value of 12.7 ppm or less must submit proposed part D NSR programs no later than November 15, 1993. The provisions of these plans must be developed in accordance with the requirements of sections 172(c)(5) and 173. The major stationary source threshold for all moderate areas remains unchanged at 100 tons per year of CO. If the area does not have an approved part D NSR permitting program and a State wishes to issue a permit for a major stationary source or major modification in such area during the interim period, the State permit should comply with the requirements in 40 CFR part 51, appendix S, until new NSR provisions are in effect.

(g) *Bump-up requirements.* According to section 186(b)(2), moderate CO nonattainment areas that fail to attain

the standard must be reclassified to serious and are then subject to the serious area requirements. This reclassification process is referred to as "bump-up." The EPA must determine within 6 months after the attainment date whether an area has attained the NAAQS for CO. The determination of attainment will be based on the design value for the area as of the attainment date. In making this determination, EPA will use the most recently available, quality-assured air quality data covering the appropriate 2-year period up to and including the attainment date. If EPA determines that an area has not attained, EPA will publish a notice and the area will be reclassified by operation of law. As specified by section 187(f), the Administrator may adjust any applicable deadlines (other than the attainment date) where such deadlines are shown to be infeasible.

As provided in section 186(a)(4), up to two 1-year extensions of the attainment date can be granted for an area if the State has met all applicable requirements contained in its implementation plan, and if the NAAQS has been exceeded no more than once during the year in which the area was to have reached attainment. Because EPA will be reviewing available data to determine the attainment status, the State should submit its application for this extension as soon as the necessary air quality data are available.

2. Moderate Areas Above 12.7 ppm

Unless otherwise noted, all moderate areas above 12.7 ppm shall meet those requirements applicable to moderate areas below 12.7 ppm, as well as the following requirements.

(a) *VMT forecasts.* Section 187(a)(2)(A) requires that States include a forecast of VMT for each year before the attainment year in the SIP revision for CO submitted to EPA by November 1992 under section 187(a)(7). The SIP revision must provide for annual updates of the forecasts and annual reports on the extent to which the forecasts were accurate, as well as estimates of actual VMT in each year for which a forecast was required. The forecast and reporting requirement applies to each CO nonattainment area having a design value above 12.7 ppm at the time of its classification. States should follow EPA guidance on VMT forecasting to be issued shortly.

The first set of forecasts is due with the SIP revision. Subsequent forecasts are to be submitted to EPA together with annual reports. The first forecast year should begin with 1993 (the first foreceast year) and should include all subsequent years up to the year of attainment. The first annual report is due September 1994 and should be accompanied by updated forecasts of 1994 and all subsequent years up to the attainment year.

Annual reports must contain annual updates of the VMT forecasts and must discuss the extent to which such forecasts proved to be accurate. These reports must also contain estimates of actual vehicle miles traveled in each year for which a forecast was required.

Recognizing that a certain amount of statistical variability is present in the VMT estimation process, EPA believes it is appropriate to allow a margin of error to be applied to VMT comparisons but that this margin should be reduced over time to account for improvements in VMT estimation methodologies. Consequently, EPA will allow a 5 percent margin of error for VMT comparisons made in 1994, a 4 percent margin for comparisons made in 1995, and a 3 percent margin for comparisons made in comparisons made in 1994, 1996 and later years. But since each revised forecast becomes the VMT baseline for triggering contingency measures, the application of a margin of error every year could allow the forecasts to increase without bound, without ever triggering contingencies. To avoid this occurrence, EPA believes it is appropriate to limit cumulative VMT growth to no more than 5 percent above the VMT forecast used as the basis for the area's attainment demonstration.

If estimated actual VMT or an updated forecast exceeds the most recent prior forecast by more than the margin of error allowed for a particular year, and/or if estimated actual VMT or forecasted VMT exceeds the cumulative 5 percent cap above the attainment demonstration forecast, contingency measures will be triggered in the nonattainment area. These contingency measures are to be adopted and enforceable in the SIP.

(b) *Contingency measures.* Section 187(a)(3) requires areas with design values above 12.7 ppm to implement contingency measures if any estimate of actual VMT in the nonattainment area, or any updated forecast of VMT contained in an annual report for any year prior to attainment, exceeds the number predicted in the most recent VMT forecast. Contingency measures must also be implemented if the area fails to attain the NAAQS for CO by the attainment date, unless it is granted an extension. For CO area with design values at or below 12.7 ppm, contingency measures are needed to satisfy the provisions under section 172(c)(9) and are due by November 15, 1993, as set by EPA under section 172(b). These provisions require contingency measures to be implemented in the event that an area fails to attain by the applicable attainment date. All contingency measures for CO areas with design values above 12.7 ppm must be adopted and enforceable and submitted to EPA by November 15, 1992, as set by EPA under section 172(b). This is the date by which the State must submit to EPA the CO SIP with demonstrations of attainment for moderate areas having a design value at or above 12.7 ppm. These contingency requirements for SIP's supersede the contingency requirements contained in the 1982 ozone and CO SIP guidance, 46 FR 7182 (January 21, 1981).

The 1990 CAAA do not specify how many contingency measures are needed or the magnitude of emission reductions (or VMT reductions) they must provide. The EPA believes that for serious nonattainment areas, a logical contingency measure for failure to attain by the attainment date would be the adoption of a requirement for a minimum 3.1 percent oxygen content of gasoline subject to the waiver provisions in section 211(m)(3). This suggested contingency measure parallels the requirement under section 211(m)(7) for serious areas which fail to attain the CO NAAQS to adopt and implement an oxygenated fuels program of at least 3.1 percent. For serious areas that fail to meet rate of progress requirements, for moderate areas that fail to attain by the attainment date, and for all areas that exceed a VMT forecast, States may select contingency measures for the reduction of CO emissions.

The EPA believes that for exceedance of a VMT forecast, one appropriate choice of contingency measures would be to provide for the implementation of sufficient VMT reductions or emissions reductions to counteract the effect of 1 year's growth in VMT while the State revised its SIP (including VMT projections) to provide for attainment by the applicable date. These measures may offset either the excess VMT in the nonattainment area or the additional CO emissions in the area that are attributable to the additional VMT. Since EPA will require the State to revise its SIP within 1 year of finding that VMT levels are exceeding forecasts considering the tolerance discussed earlier, the contingency measures should be capable of reducing VMT or resultant emissions by an amount equal to the projected annual growth rate for VMT. In other words, if VMT is expected to increase at a rate of 2 percent per year, the contingency measures under this alternative should be capable of

reducing future VMT (or offsetting VMT growth) by 2 percent.

As discussed above for ozone areas, EPA Interprets the requirement for contingency measures to "take effect without further action by the State or the Administrator" to mean that no further rulemaking activities by the State or EPA would be needed to implement the measures. Certain actions, such as notification of sources, modification of permits, etc., would probably be needed before a measure could be implemented effectively. States must show that their contingency measures can be implemented with minimal further action on their part and with no additional rulemaking actions.

(c) *Special rule on TCM's for Denver.* The requirements of section 187(a)(2)(B) have the same effect as sections 182(d)(1)(A) and 187(b)(2), discussed below in section III.B.3.(b) (TCM's equivalent to severe ozone TCM's). Readers are referred to that discussion for a description of this requirement.

(d) *Enhanced I/M.* Section 187(a)(6) requires moderate or above CO nonattainment areas with a design value greater than 12.7 ppm to implement enhanced I/M programs in urbanized areas within the nonattainment areas, as defined by the Bureau of Census, with 1980 populations of 200,000 or more. The section requires that the plan meet the requirements of section 182(c)(3), as discussed in the section in this preamble concerning enhanced I/M in serious and above ozone nonattainment areas.

In some cases, areas may have become newly subject to both basic and enhanced I/M requirements at the time of enactment, with the basic I/M requirements due shortly prior to the deadline for submission of the SIP revision providing for the enhanced I/M program. In such cases, EPA regards enhanced I/M requirements as superseding the basic I/M requirements, and therefore will not require the submission of the basic I/M requirements discussed previously. The EPA will, under section 182(i), require SIP revisions to provide for an enhanced I/M program within 2 years in areas newly subject to enhanced I/M requirements in the future as a result of redesignation or reclassification.

The SIP's for enhanced I/M programs are due no later than November 15, 1992. In the event that EPA's enhanced I/M performance standard is not finalized soon enough to provide sufficient time for full SIP development, EPA will use its authority under section 110(k)(4) to conditionally approve SIP submittals committing to adopt enforceable, enhanced I/M programs consistent with EPA guidance. The guidance will cover the elements of the SIP.

If a moderate nonattainment area fails to attain the CO standard by December 31, 1995, and is reclassified to serious, an enhanced I/M program must be implemented if the area meets the population criterion (urbanized area population, as defined by the Census Bureau, of 200,000 or more). The EPA will, under section 182(i), require SIP revisions to provide for an enhanced I/M program within 2 years of redesignation or reclassification.

As mandated by section 202(m), the Administrator will promulgate regulations requiring manufacturers to install diagnostic systems on all new light-duty vehicles and light-duty trucks. The purpose of these systems is to identify and track emissions-related systems deterioration or malfunction. According to section 202(m)(3), within 2 years of EPA's promulgating regulations requiring States to do so, all States with I/M programs must amend their SIP to provide for inspection of these onboard diagnostics systems. The EPA will issue revised I/M guidance which addresses onboard diagnostic inspections.

(e) *Attainment demonstration.* Section 187(a)(7), "Attainment Demonstration and Specific Annual Emission Reductions," applies to CO nonattainment areas with a design value greater than 12.7 ppm at the time of classification. A demonstration of attainment is required by November 15, 1992, and can be met through application of a modeling analysis, following the guidance contained in EPA "Guideline on Air Quality Models (Revised)."

The attainment demonstration must include a SIP control strategy, which is also due by November 15, 1992. The SIP control strategy for a given nonattainment area must be designed to ensure that the area meets the specific annual emission reductions necessary for reaching attainment by the deadline.

(f) *Tracking plan implementation and milestone compliance.* Section 187(a)(2) requires States containing CO nonattainment areas with design values above 12.7 ppm to submit plans that contain forecasts [13] of VMT for each year before the year in which the plan projects attainment. Subsequently, the States must submit annual updates to those forecasts and report on how accurate the previous forecasts proved to be. The annual reports containing estimates of VMT must be preapred for each year in which a forecast was required. Contingency measures, developed in accordance with section 187(a)(3) (see section III.B.2.(b)), must be implemented if either the annual estimates of actual VMT or any new VMT forecasts exceeds the earlier forecasts included in the State plan, considering the tolerance discussed above. The first annual reports for CO areas (with design values above 12.7 ppm) must be submitted to EPA within 9 months after the first full calendar year after the attainment demonstration is due (i.e., the reports must be submitted by September 1994). These reports must contain estimates of actual VMT in the previous year, forecasts of VMT in future years, and verification that contingency measures are being implemented if the actual VMT estimates for the previous year or any new VMT forecasts for any year until the attainment year exceed any earlier forecasts in the State plan. The reports must also show that the control strategies are being implemented as projected in the plan. The EPA wants to use the annual reports to ensure that VMT forecasts are consistent with VMT estimates. Furthermore, a serious CO nonattainment area must demonstrate by March 31, 1996 that it has "achieved a reduction in emissions of CO equivalent to the total of the specific annual emission reductions required by December 31, 1995" (section 187(d)(1)—Milestone Demonstration).

(g) *NSR.* All CO nonattainment areas with a design value greater than 12.7 ppm part D NSR programs meeting sections 172(c)(5) and 173 requirements not later than November 15, 1992, in accordance with section 187(a)(7).

3. Serious Areas

(a) *Major stationary source definition.* As specified in section 187(c)(1), for serious CO nonattainment areas in which stationary sources contribute significantly to CO levels (determined according to guidance issued in the May 13, 1991 memorandum from William Laxton, Director, Technical Support Division, to Regional Air Division Directors), a SIP shall be submitted by November 15, 1992 that provides that the term "major stationary source" includes any stationary source that emits or has the potential to emit 50 tons per year or more of CO. If such determination is not made by EPA under section 187(c)(1), then "major stationary source" includes any stationary source that emits or has the potential to emit 100 tons per year or more of CO.

(b) *TCM's equivalent to severe ozone TCM's.* Serious CO areas (and Denver, Colorado) must adopt and implement

[13] Guidance for preparing the forecasts of VMT is contained in the section 187 VMT Forecasting and Tracking Guidance.

enforceable TCM's in conjunction with other control measures necessary to comply with the periodic emissions reduction requirements of the 1990 CAAA. The TCM's, which are required to offset any growth in emissions from growth in VMT and number of vehicle trips and to achieve necessary reductions in mobile source emissions, are due by November 15, 1992. States should choose from the list of TCM's and other measures in section 108(f). These requirements are contained in section 187(b)(2) for CO areas and section 187(a)(2)(B) for Denver. See section III.A.5.(d) above (severe ozone TCM's) for a discussion of how to calculate growth in emissions from growth in VMT.

All serious CO areas covered by the clean-fuel vehicle fleet program (except for areas in New York State, should any such area ultimately be bumped to serious), as well as Denver, must explain why any section 108(f) measure is not adopted, what proposed emission reduction measures will provide comparable reductions, or why such reductions are not necessary to attain the CO NAAQS. This requirement may be met by an attainment demonstration using EPA modeling techniques that shows the other adopted control measures are sufficient to provide for attainment by the required date.

This requirement must be met by any serious CO area meeting the section 246 definition of "covered area." Section 246 defines "covered areas" as areas with a CO design value of 16 ppm or greater, excluding those areas in which mobile sources do not contribute significantly to CO exceedances. Of the three existing areas with CO design values above 16 ppm, EPA anticipates that one (the Steubenville, Ohio area) may be able to show that mobile sources do not contribute significantly to CO exceedances. Thus, at the minimum, this requirement would apply to the Denver and Los Angeles areas. Areas that are not "covered areas" are not required by this provision to justify their rejection of TCM's.

(c) *Clean-fuel vehicle fleet program.* Section 246(a)(2)(B) requires that all CO nonattainment areas with 1980 populations of 250,000 or more and design values of 16.0 ppm or higher, submit SIP revisions providing for clean-fuel vehicle fleet programs by May 15, 1994 (42 months from enactment).

The programs must require a specified percentage of fleet vehicles in model year 1998 and thereafter to be clean-fuel vehicles that use only clean alternative fuels when operating in the area. For light-duty vehicles and light-duty trucks, the required percentage must be 30 percent in 1998, 50 percent in 1999, and 70 percent in 2000 and thereafter. For heavy-duty trucks, the percentage must be 50 percent in each such year. Light-duty vehicles and light-duty trucks in fleets participating in this program for these model years must also meet the title II clean-fuel vehicle standards for model year 2001. If light-duty vehicles and light-duty trucks of 6,000 pounds GVWR or less are not available in California before model year 2001, the phase-in schedules will be delayed accordingly.

Some of the major program requirements include the following: That fuel providers make clean alternative fuel available to fleet operators; that Federal fleets (except certain vehicles certified by the Secretary of Defense as needing an exemption based on national security grounds) be included in the program; and that credits consistent with EPA regulations due 1 year from enactment be issued for purchasing more vehicles than required, for purchasing vehicles that exceed the established standards, or for purchasing vehicles prior to the effective date of the program. In addition, certain TCM's may not apply to covered fleet vehicles consistent with EPA regulations.

Areas where mobile sources do not contribute significantly to CO exceedances may be able to obtain a waiver from the clean-fuel program. The reader is referred to the discussion in this preamble that addresses guidance on waivers for mobile source measures, section III.B.7.

Each State subject to the fleet program may submit a SIP revision by November 15, 1992 consisting of fully adopted control measures as a substitute for all or a portion of the clean-fuel vehicle program required by section 246. The substitute measures must demonstrate to the satisfaction of the Administrator that the long-term reductions in CO emissions and toxic substances are, at a minimum, equal to those that would be achieved under the clean-fuel vehicle program or the percentage of the emissions reductions attributable to the portion of the program for which the revision is to substitute. Substitute measures may not include any other measures required by the Act.

(d) *Milestone and attainment failures (economic incentive programs).* Economic incentives and transportation control programs (as described in section 182(g)(4)) are required for serious areas under several different types of failure: Failure to submit a milestone demonstration (as defined in section 187(d)(1)), failure to meet the milestone (section 187(d)(3)), or failure to attain the standard by the applicable attainment date (section 187(g)). In all such cases, the State shall submit a plan revision with such incentives within 9 months of failure. The EPA urges such a State to initiate the development of a program of economic incentives and transportation controls as soon as it can reasonably define the objectives and scope of an appropriate program, without waiting until such a failure occurs. The EPA believes that early initiation is important so as to allow for sufficient time to develop, implement, and evaluate the effectiveness of the program. Economic incentive programs are discussed in more detail in section III.G.3.

(e) *Long-term measures.* The EPA recognizes that some serious CO nonattainment areas (and perhaps areas with long-term attainment dates for other pollutants) will have such large emissions reductions requirements that identifying, developing, and adopting in final form the control measures that represent the areas preferred strategy for their demonstrations of attainment may present an unreasonable burden. The EPA believes that these areas may need additional time to fully develop and adopt certain "long-term" measures that would be the preferred means to reach attainment. These measures would include those that require complex analyses and decision making and coordination among a number of government agencies.

The EPA intends to allow these areas reasonable additional time to complete full development and adoption under the following conditions:

(1) The plan containing the demonstration of attainment must identify each measure for which additional time would be needed for full development and adoption.

(2) The plan must show that the long-term measures cannot be fully developed and adopted by the submittal date for the attainment demonstration.

(3) The plan must contain an enforceable commitment by the relevant agency that development and adoption will occur on an expeditious schedule to achieve specified emission reductions from each long-term measure for each year through the attainment year.

(4) The plan must contain "backstop" measures that would be implemented to achieve equivalent emission reductions unless the long-term measure is adopted on schedule.

(5) The long-term measures must not be needed to meet any emission reduction requirement before December 31, 1995.

The "backstop" measures required under condition 4 must be submitted with the 1992 attainment demonstration in fully adopted form. The "backstop" measures must be designed to go into effect automatically on a schedule sufficient to achieve all of the reductions identified with each long-term measure for each year through the attainment year. The "backstop" measures may represent broad, across-the-board reductions in emissions, rather than thoroughly analyzed and developed control measures. For this reason, EPA does not anticipate the actual implementation of "backstop" measures in most cases, as States will have ample opportunity to submit SIP revisions incorporating the fully developed long-term measures and deleting the "backstop" measures from the SIP. Additionally, if a long-term measure cannot be developed, then the State has the option to submit a SIP revision identifying a fully developed and adopted alternative measure to replace the original long-term measure prior to any necessary implementation of "backstop" measures.

Thus, a State may find that progress can be achieved with measures that are fully developed by the 1992 SIP submittal date. However, the State may determine that expeditious attainment of the NAAQS is impossible unless the SIP also includes measures which cannot be fully developed until after the 1992 SIP is due. In its 1992 SIP submittal, the State must clearly describe each of these long-term measures and show that each measure cannot be fully developed and adopted until a specified future date, despite expeditious implementation efforts. The 1992 SIP must include with each long-term measure an enforceable schedule, binding responsible agencies to achieve identified emissions reductions from each measure.

Along with these provisions, the State's 1992 SIP submittal must include "backstop" measures. The "backstop" measures must be fully adopted and scheduled for implementation to achieve reductions equivalent to those assigned each year by the long-term measures. When each long-term measure is fully developed, it must be submitted to EPA as a SIP amendment. This amendment would also propose deletion of the associated "backstops." The EPA's approval of the long-term measures would also rescind from the SIP, the "backstop" measures.

4. "Not Classified" Nonattainment Areas

(a) *General.* Nonclassifiable CO areas consist of "not classified" areas. The EPA describes areas as "not classified" if they were designated nonattainment both prior to enactment and (pursuant to section 107(d)(1)(C) at enactment, and if they did not violate the primary NAAQS for CO in either year for the 2-year period 1988 through 1989.

Although it seems clear that the CO-specific requirements of subpart 3 of part D do not apply to CO "not classified" areas, the 1990 CAAA are silent as to how the requirements of subpart 1 of part D, which contains general SIP planning requirements for all designated nonattainment areas, should be interpreted for such CO areas. Nevertheless, because these areas are designated nonattainment, some aspects of subpart 1 necessarily apply. The EPA interprets the requirements under section 172(c) for these areas below. Applicable revisions to the SIP are due 3 years from designation under section 107(d) (see 56 FR 56694).

(1) *RACM.* Reasonably available control measures are required for areas needing to achieve attainment. Because "not classified" areas may be already attaining or are presumably very near attainment, the EPA believes that additional RACM controls beyond what may already be required in the SIP are not necessary to achieve attainment and are therefore not required.

(2) *Attainment demonstration.* Section 187(a)(7) specifically exempts moderate areas with design values less than 12.7 ppm from requiring an attainment demonstration. Because these moderate areas are exempt from this requirement, it would seem unreasonable to subject this requirement to an area that was not violating the standard. Therefore, EPA will presume that the existing SIP requirements and any existing and future Federal requirements (e.g., the title II rules) will be sufficient to provide for attainment in these areas.

(3) *RFP.* A RFP requirement assumes a long nonattainment period. The fact that a "not classified" area is already in or near attainment obviates the need for an RFP requirement.

(4) *Emissions inventory.* An emissions inventory is specifically required under this section and is not tied to an area's proximity to attainment. Moreover, even if these areas are already attaining or near attainment, they will need such an inventory to develop an approvable maintenance plan under section 175A. Therefore, an emissions inventory must be included in the SIP revision due 3 years from designation.

(5) *NSR.* Like the emissions inventory requirement, the NSR requirement is not tied to an area's proximity to attainment, and therefore exempting a nonattainment area from the NSR requirements is not allowed by the Act. Furthermore, the new NSR program is one of the Act's major bulwarks for preventing further deterioration of the Nation's air quality. Therefore, all nonattainment areas, including "not classified" areas, are required to adopt NSR programs meeting the requirements of section 173, as amended.

(6) *Monitoring.* Section 172 (b) and (c) explicitly states that nonattainment areas should meet the "applicable" monitoring requirements of section 110(a)(2).

(7) *Contingency measures.* Contingency measures are not required for "not classified" areas in light of the fact that moderate areas with a design value less than 12.7 ppm are exempt from the contingency measures requirement.

(b) *Attainment dates for "not classified" areas.* Section 172(a)(2) requires an attainment date of no later than 5 years from an area's designation as nonattainment. For areas designated nonattainment under section 107(d)(1)(C)(i) (pre-enactment nonattainment areas), the attainment date is November 15, 1995. For newly designated areas, the attainment date will be 5 years from the effective date of the nonattainment designation. For areas that fail to attain in 5 years, EPA is considering one or more of the following actions:

(1) If an area fails to attain 5 years from designation, the area is bumped up to moderate if the area's design value is at least 9.1 ppm.

(2) If an area fails to attain 5 years from designation the area retains its "not classified" status, but EPA will tighten Subpart 1 requirements. This could include a showing of enforceable rules or possibly a basic I/M program.

(c) *"Not classified" CO areas.* Violations are determined by the number of nonoverlapping exceedances greater than or equal to 9.5 ppm during the 2-year period 1988–1989. If the number of exceedances in either year was greater than or equal to 2, the area is violating the CO NAAQS.

Once it has been established that the area is violating the standard, the highest second-highest, nonoverlapping 8-hour measured value over the 2-year period is the design value for the area. The design value determines classification. A CO area cannot be classified submarginal because a design value of <9.5 ppm is not violating the standard (i.e., there are less than two exceedances in each of the 2 years), and an area can only be submarginal if it is violating the standard.

(1) *Requirements.* The CO areas termed "not classified" are analogous to ozone transitional areas. The amended Act does not provide guidance in subpart 3 for CO areas that fall into the "not classified" category. However, all nonattainment areas, including "not classified" areas, are subject to several of the requirements in subpart 1 of the Act as discussed above. Specifically, section 172(b) requires a SIP revision within 3 years of designation. The SIP revision must meet several requirements, in particular, NSR.

If a State submits a request for redesignation to attainment, then a proper and adequate maintenance plan as defined in section 175A, is required. The Administrator announced in the November 6, 1991 **Federal Register** those CO nonattainment areas that did not violate the NAAQS during the 24-month period between January 1, 1988 and December 31,1989. For such areas, the requirements under subpart 3 do not apply.

In order to be redesignated to attainment, a "not classified" area must provide documentation to support the conclusion that the five redesignation requirements of section 107(d)(3)(E) have been met. For a discussion of the specific State actions required for satisfying these five redesignation requirements, see "Redesignations" under section III.H5 of this notice.

(2) *NSR.* By November 15, 1993, all such "not classified" areas must submit rules to implement the new part D NSR permit requirements of sections 172(c)(5) and 173 of the 1990 CAAA. In the meantime, all existing NSR rules will remain in effect. If the area does not have an approved part D NSR permitting program and a State wishes to issue a permit for a major stationary source or major modification in such area during the interim period, the State permitting program should comply with the requirements in 40 CFR part 51, appendix S, until the new part D NSR requirements become effective.[14]

(3) *Failure to attain.* If a "not classified" area violates the NAAQS at some time in the future, then it will be classified in accordance with Table 3, section 186(2). Upon classification, the area will continue to be subject to the requirements under subpart 1 and those specific provisions under subpart 3 appropriate to the classification that would have applied to the area had it been so classified at the time of the notice under section 186(a)(2). Under section 187(f), the Administrator may adjust any applicable deadlines (other than attainment dates) if the deadlines are shown to be infeasible.

5. Multi-State CO Nonattainment Areas

Section 187(e) defines a "multi-State CO nonattainment area" as a single CO nonattainment area that covers more than one State. Section 187(e) also establishes certain requirements for such areas. First, each State in a multi-State CO nonattainment area must take all reasonable steps to coordinate both the SIP revisions required and the implementation of SIP's that apply in the given nonattainment area. Section 187(e) also prevents EPA from approving any SIP revision submitted under this section if a State has failed to meet the above requirements.

Finally, section 187(e)(2) allows a State that fails to provide a demonstration of attainment for that State's portion of a multi-State CO nonattainment area to petition EPA to make a finding that such State could have demonstrated attainment, but for the failure of one or more other States in the area to adequately implement measures required under section 187 for the given area. If EPA makes such a finding, then the sanctions provisions under section 179 for failure to make an adequate attainment demonstration shall not apply to the State awarded the finding.

Pursuant to section 187(e)(1), EPA is calling on each multi-State CO nonattainment area to develop a joint work plan as evidence of early cooperation and integration. The work plan must include a schedule for developing the emissions inventories, the VMT forecasts, and the attainment demonstration for the entire multi-State area. Each State within a multi-State CO nonattainment area is responsible for meeting all the requirements relevant to the given area.

In order to be sufficient to avoid a section 187(e)(2) finding of failure to demonstrate attainment, an attainment demonstration must meet the requirements in section 187(a)(7). Refer to section III.B.3.(e) for guidance on developing attainment demonstrations. Note that moderate multi-State CO nonattainment areas with a design value of 12.7 ppm or lower at the time of classification are not required to meet the requirement of developing an attainment demonstration since section 187(a) excludes all such areas from any requirement for attainment demonstrations.

6. Areas With Significant Stationary Source Emissions

Section 187(c)(3) calls for the Administrator to issue guidelines and rules for determining whether stationary sources contribute significantly to CO levels in an area. In the case of a serious area in which stationary sources contribute significantly to CO levels, section 187(c)(1) requires the State to revise the definition of major stationary source in that area to include any stationary source that emits, or has the potential to emit, 50 tons per year or more of CO.

Guidance on the definition of a significant CO stationary source area is available in an EPA memorandum dated May 13, 1991, from William G. Laxton, Director, Technical Support Division, regarding "Guidance for Determining Significant Stationary Sources of Carbon Monoxide." The guidance defines a significant CO stationary source area through the use of the results of dispersion modeling of one or more stationary sources of CO in the area. The reader should refer to that guidance for further information.

7. Guidance on Waivers for Mobile Source Measures

The waiver provisions of section 187(c)(2) provide the Administrator with discretionary authority to waive certain mobile source requirements in both moderate and serious CO nonattainment areas where mobile sources do not contribute significantly to CO levels in the area. Specifically, the Administrator may on a case-by-case basis waive any requirements that pertain to transportation controls, I/M, or oxygenated fuels where the Administrator determines by rule that mobile source contribution is convincingly demonstrated to be insignificant in relation to the cause of the area's overall CO problem. The EPA will only consider granting a waiver from controls on mobile CO sources under section 187(c)(2) if it is clear that mobile sources in the aggregate do not

[14] If a "not classified" area has not recorded any violations by December 31, 1991, and is in the process of developing a maintenance plan per section 175A, then EPA may not require nonattainment NSR rules. However, these areas must continue to apply their existing NSR program or comply with the NSR permitting requirements of 40 CFR part 51, appendix S. Prior to redesignation, these areas also must adopt and be prepared to implement a permitting program that satisfies the requirements of part C and EPA's regulations implementing the PSD program. Areas should consider the need for offsets under the part C program to ensure that new sources do not "cause or contribute" to an increase in pollutant levels that would take the area out of compliance. If the area is found to be out of compliance and the statutory deadlines for adopting amended part D permitting rules for the pollutant in question have passed, EPA may impose a contruction ban pursuant to section 113(a)(5) until such time as the area adopts a part D program satisfying the NSR requirements of the CAAA.

contribute significantly to the CO nonattainment problem, and there is a SIP submittal demonstrating attainment of the CO NAAQS by the required date without such mobile source controls. This would be in addition to a showing under section 187(c)(3) pertaining to stationary sources that "contribute significantly to carbon monoxide levels in the area." The attainment demonstration should use EPA-approved modeling techniques; i.e., a complete modeling analysis is needed, considering point, area, and mobile source emissions. The waiver would be granted upon approval of the CO SIP. The waiver of mobile source measures would no longer apply if a subsequent maintenance plan demonstration relied on such mobile source measures.

C. Particulate Matter

1. Statutory Background

(a) *Designations.* On the date of enactment of the 1990 CAAA, PM-10 areas meeting the qualifications of section 107(d)(4)(B) of the amended Act were designated nonattainment by operation of law. These areas included all former Group I areas identified in 52 FR 29383 (August 7, 1987) and clarified in 55 FR 45799 (October 31, 1990), and any other areas violating the PM-10 NAAQS prior to January 1, 1989 (many of these areas were also identified in the October 31, 1990 **Federal Register** notice). All other areas were designated unclassifiable. A **Federal Register** notice announcing all of the areas designated nonattainment for PM-10 at enactment of the 1990 CAAA and classified as moderate was published in 56 FR 11101 (March 15, 1991). A subsequent notice correcting certain information in the March 15, 1991 notice was published in 56 FR 37654 (August 8, 1991). Subsequent to the 1990 CAAA enactment date, EPA may redesignate any of these unclassifiable areas to nonattainment in accordance with section 107(d)(3). On April 22, 1991 EPA announced in 56 FR 16274 that it had initiated the redesignation process for 16 areas.

(b) *Classifications and attainment dates.* Once an area is designated nonattainment, section 188 of the amended Act outlines the process for classification of the area and establishes the area's attainment date. In accordance with section 188(a), at the time of designation, all PM-10 nonattainment areas are initially classified as moderate by operation of law. A moderate area can subsequently be reclassified as serious either before the applicable moderate area attainment date, if at any time EPA determines the area cannot "practicably" attain the PM-10 NAAQS by this attainment date; or following the passage of the applicable moderate area attainment date, if EPA determines the area has failed to attain (see section 188(b)).

For those areas which were designated nonattainment upon enactment of the 1990 CAAA by operation of law, where EPA determines that the area cannot "practicably" attain the NAAQS by December 31, 1994, the amended Act specifies certain dates by which EPA must propose to reclassify appropriate moderate areas as serious (see 56 FR 58656, November 21, 1991) and take final action. The EPA also has discretionary authority under section 188(b)(1) to reclassify any of these areas as serious at any time, if EPA determines they cannot practicably attain the PM-10 NAAQS by December 31, 1994.[15] The EPA may exercise this discretion where, for example, EPA originally believed an area could attain the PM-10 NAAQS by December 31, 1994 but later determines that it cannot attain. For example, EPA may find an area cannot practicably attain by December 31, 1994 after reviewing the November 15, 1991 SIP submittal for an area. Or, if a State fails to submit a PM-10 SIP for an area, EPA could conclude that the area could not practicably attain the standards by the applicable attainment date based, for example, on the severity of the nonattainment problem, the feasibility of controls, and other pertinent factors. Any decision by EPA to reclassify an area as serious will be based on facts specific to the nonattainment area at issue and will only be made after providing notice in the **Federal Register** and an opportunity for public comment on the basis for EPA's proposed decision.

The EPA does not believe that reclassifying moderate areas as serious at any time EPA determines that an area cannot practicably attain the standards by the applicable attainment date, rewards areas who delay development and implementation of PM-10 control measures. Rather, EPA believes its policy creates an incentive for the timely submittal and effective implementation of moderate area SIP requirements and facilitates the PM-10 attainment objective. For example, if an area that fails to submit a timely moderate area SIP is reclassified, this does not obviate the requirement that the area submit and implement RACM consistent with the moderate area schedule. Accordingly, the area could be subject to sanctions for its delay in submitting the RACM SIP requirement (see sections 110(m) and 179). Further, reclassification before the applicable attainment date will ensure that additional control measures (i.e. in addition to RACM, serious areas must implement best available control measures (BACM), are implemented sooner and will expedite the application of more stringent new source review requirements to the area (see sections 188(b)(1) and 189(b)(3)). Similarly, where an area submits a timely moderate area SIP, EPA may not discover that the area cannot practicably attain until some time after it begins implementing its moderate area control measures. The EPA then may want to reclassify the area in order to facilitate the development and implementation of BACM. Finally, a reclassified area must demonstrate attainment "as expeditiously as practicable" and no later than specified dates (see section 188(c)(2)). Accordingly, EPA may reclassify an area and conclude that the most expeditious attainment date practicable for the area is a time prior to the latest possible attainment deadline.

For areas designated nonattainment after enactment of the 1990 CAAA, EPA must reclassify appropriate areas as serious within 18 months of the required submittal date for the moderate area SIP. Taken together with the statutory requirement that these SIP's be submitted 18 months after being designated nonattainment, the statute thus requires that EPA reclassify the appropriate moderate area as serious within 3 years of the nonattainment designation.

Finally, in those cases where EPA determines that an area has failed to

[15] One commenter questioned whether EPA has discretionary authority to reclassify an area "at any time" EPA determines the area cannot practicably attain the PM-10 standards by the applicable moderate area attainment date. Under the plain meaning of the terms of section 188(b)(1) EPA has general discretion to reclassify at any time before the applicable attainment date any area EPA determines cannot practicably attain the standards by such date. Accordingly, section 188(b)(1) is a general expression of delegated rulemaking authority. In addition, subparagraphs (A) and (B) of section 188(b)(1) mandate that EPA reclassify at specified timeframes any areas it determines appropriate for reclassification at those dates. These subparagraphs do not restrict the general authority but simply specify that, at a minimum, it must be exercised at certain times. This interpretation furthers the overarching purpose of the statute in that reclassification would expedite the application of additional control measures in the situation where EPA finds, after the mandated reclassification rulemaking and before the applicable attainment date, that an area cannot practicably attain the standards. This, in turn, would expedite ultimate attainment of the PM-10 standards. In summary, EPA believes it is a reasonable interpretation and consistent with the plain language of the statute to construe section 188(b)(1) such that it authorizes EPA to reclassify an area, as appropriate, at any time before the applicable attainment date and mandates that, at a minimum, EPA make this inquiry at specified times.

attain the NAAQS by the applicable attainment date, the area is reclassified as serious by operation of law. The EPA must publish a notice in the Federal Register of such determinations and consequent reclassifications within 6 months following the applicable attainment date.

Since this General Preamble addresses only the control measures recommended for moderate PM-10 nonattainment areas, the following discussion has been limited to the attainment dates for moderate nonattainment areas. Section 188(c)(1) of the amended Act specifies that the initial moderate nonattainment areas (those designated nonattainment upon enactment of the 1990 CAAA) are to attain the PM-10 NAAQS as expeditiously as practicable but no later than December 31, 1994, unless they are reclassified as serious (as described above). Areas designated nonattainment after enactment of the 1990 CAAA and classified as moderate must attain the PM-10 NAAQS as expeditiously as practicable but no later than the end of the sixth calendar year after the area's designation as nonattainment.

(c) *General SIP requirements.* As discussed above, States must develop and submit a SIP providing for the attainment of the PM-10 NAAQS for every area designated nonattainment and classified as moderate for PM-10 under the amended Act. Under section 189(a)(2), States must submit a SIP revision (e.g. RACM/RACT and attainment demonstration) for the moderate PM-10 areas designated nonattainment upon enactment of the 1990 CAAA by November 15, 1992. The NSR program provisions for these areas are due June 30, 1992. States must submit SIP's for those PM-10 areas designated nonattainment after enactment of the 1990 CAA within 18 months of these areas' being designated nonattainment for PM-10.

The specific PM-10 SIP requirements applicable to moderate nonattainment areas are set forth in the PM-10 subpart (subpart 4 of part D, title I). These requirements include section 189(a) (NSR permit program, attainment demonstration, and RACM/RACT); section 189(c) (quantitative milestones); and section 189(e) (PM-10 precursors). The SIP's for moderate PM-10 nonattainment areas must also meet the general provisions applicable to nonattainment areas set forth in subpart 1 of part D, title I of the amended Act to the extent that these provisions are not otherwise subsumed by, or integrally related to, the more specific PM-10 requirements. Whenever possible during this discussion of PM-10, EPA has clarified the relationship between subparts 1 and 4. All SIP's must also meet the applicable regulatory requirements set forth in 40 CFR part 51 except to the extent those requirements are inconsistent with the amended Act.[16] The EPA will provide guidance at a later date for those SIP requirements not addressed in this General Preamble. The discussion below is intended to provide additional background on some of the statutory requirements for moderate PM-10 nonattainment area SIP's and, in some cases, to provide guidance on these statutory requirements.

(d) *NSR permit program.* Section 189(a)(1) of the amended Act provides that for the purpose of meeting the requirements of section 172(c)(5), each State with a PM-10 nonattainment area classified as moderate must submit an implementation plan which contains a permit program meeting the requirements of section 173 for the construction of new and modified major stationary sources of PM-10 (and in some cases PM-10 precursors). For the initial moderate PM-10 nonattainment areas designated according to section 107(d)(4), States must submit the NSR permit program SIP revision to EPA by June 30, 1992. For PM-10 nonattainment areas designated after enactment of the 1990 CAAA, States must submit a SIP containing the NSR permit program within 18 months after designation of each affected area. The EPA intends to issue proposed regulations for the NSR program SIP's. However, in today's General Preamble, EPA has provided guidance on the NSR permit program requirements which is intended to assist States in developing and timely submitting their June 30, 1992 NSR SIP revision for the initial moderate PM-10 nonattainment areas, and any NSR SIP revision submittal due for any additional areas designated nonattainment for PM-10 before the NSR regulations are finalized.

(1) *Moderate areas.* To meet the requirements of section 172(c)(5), States must implement a permit program that meets all the permit requirements of section 173 for the construction and operation of new and modified major stationary sources of PM-10. As defined in section 302(j), the term major stationary source means any stationary source which directly emits, or has the potential to emit, 100 tons per year or more of PM-10. The emissions offset ratio for such sources is equal to or grater than 1:1 as specified in section 173(c).

Section 189(e) makes the control requirements applicable to major stationary sources of PM-10 also applicable to major stationary sources of PM-10 precursors. For the purposes of implementing the requirements of section 189(e), precursors of secondarily-formed PM-10 may include VOC's which form secondary organic compounds, SO_2 which form sulfate compounds, and NO_x which form nitrate compounds. Therefore, the control requirements applicable under PM-10 SIP's for major stationary sources of PM-10 shall also apply to major stationary sources of these potential precursors, except where the Administrator determines that such sources do not significantly contribute to PM-10 levels that exceed the PM-10 ambient standards in the area. The Act leaves unaddressed the question of whether each specific PM-10 precursor should be considered together or independently in determining major source size and the applicability of section 173 (e.g., permit requirements). However, with respect to ozone, EPA's practice has been to consider each specific ozone precursor independently when making similar determinations. Accordingly, EPA proposes to treat PM-10 precursors analogous to ozone precursors and also consider each specific precursor independently when determining source size and whether section 173 provisions apply. Nothing in this guidance, however, would preclude a State from adopting a stricter standard and, thus, proposing to consider all specific PM-10 precursors together.

(2) *Serious areas.* Section 189(b)(3) defines the terms "major source" and "major stationary source" to include any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the potential to emit, at least 70 tons per year of PM-10. Such new and modified major stationary sources that emit PM-10 are subject to the permit requirements of section 173 and the PM-10 precursor provisions of section 189(e).

(e) *Attainment demonstration.* Section 189(a)(1)(B) provides that States with moderate PM-10 nonattainment areas must submit a demonstration (including air quality modeling) showing attainment by the applicable attainment date. Alternatively, the State must show

[16] The 1990 CAAA includes a General Savings Clause (see section 193) which provides that regulations (or guidance, etc.) in effect before the enactment of the 1990 CAAA shall remain in effect after enactment. However, the Savings Clause also provides that such regulations (or guidance, etc.) shall remain in effect "except to the extent otherwise provided under this Act, inconsistent with any provision of this Act, or revised by the Administrator." *Id.*

that attainment by the applicable date is impracticable. This SIP submittal is due on November 15, 1992 for the moderate areas designated nonattainment for PM-10 at enactment of the 1990 CAAA and within 18 months for those moderate areas designated nonattainment after enactment of the 1990 CAAA. As a necessary adjunct to the demonstration of attainment, the SIP submittal must contain a comprehensive, accurate, current inventory of actual emissions from all sources of PM-10 in the area, as prescribed in section 172(c)(3).

In general, attainment demonstrations for the initial moderate nonattainment areas should follow the existing modeling guidelines addressing PM-10 (e.g., "PM-10 SIP Development Guideline" (June 1987); "Guideline on Air Quality Models" (Revised); memorandum from Joseph Tikvart and Robert Bauman dated July 5, 1990) and any applicable regulatory requirements. The EPA also has developed a supplemental attainment demonstration policy that may be followed for initial moderate PM-10 nonattainment areas facing special circumstances. That policy statement is provided in appendix C5. Attainment demonstrations for moderate areas designated after enactment of the 1990 CAAA will be reviewed in accordance with the general guidance addressing PM-10, cited above, and any other applicable EPA guidance or regulations. The supplemental policy also noted above will not apply to these areas.

(f) *RFP/quantitative milestones.* The PM-10 nonattainment area SIP's must include quantitative emissions reductions milestones which are to be achieved every 3 years and which demonstrate RFP, as defined in section 171(1), until the area is redesignated attainment (section 189(c)). Under the milestone requirement, the States must demonstrate to EPA that the SIP measures are being implemented and the milestones have been met, within 90 days after the milestone due date. The EPA must then determine whether or not the State's demonstration is adequate, within 90 days of receiving the demonstration.

Under section 189(c), the State is required to submit a SIP revision if it fails to submit the quantitative milestone demonstration, or EPA determines that a milestone was not met. The SIP revision is due within 9 months of either the missed reporting date or EPA's determination that a milestone was missed. The SIP revision must assure that the State will achieve the next milestone by the applicable date and/or meet the PM-10 attainment date if there is no next milestone.

There is a gap in the law that the text of section 189(c) does not articulate the starting point for counting the 3-year period. The EPA believes it is reasonable to begin counting the 3-year milestone deadline from the due date for applicable implementation plan revisions containing the control measures for the area. The EPA believes it is reasonable to key the milestone clock to the SIP revision containing control measures which will give rise to emission reductions. Further, control measures must be implemented in less than 3 years after the SIP revision containing them is required to be submitted. Therefore, it is reasonable to expect that some reduction in emissions will have occurred 3 years after the SIP revision due date. The EPA believes that measuring the 3-year period from the SIP revision due date is also reasonable. Essentially, EPA believes it would be unreasonable to begin counting the 3-year period whenever the SIP revision is submitted, in disregard of its due date. The statute contains specific SIP submittal and attainment deadlines. These deadlines and the framework they set up inform EPA's interpretation of this requirement. Here, EPA believes that the law contemplates that some improvement in air quality be made between the SIP submittal due date and ensuring 3-year increments. Further, to begin counting from the date of actual SIP submittal and not its due date would allow those States that submit SIP's late to defer meeting their quantitative milestones and, consequently, to defer making RFP toward attainment of the PM-10 standard. Thus, the first quantitative milestone deadline for the initial PM-10 moderate nonattainment areas is November 15, 1994; 3 years after November 15, 1991 when SIP revisions containing RACM (including reasonably available control technology) are due for these areas.

For the initial PM-10 moderate nonattainment areas, the emissions reductions progress made between the SIP submittal (due date of November 15, 1991) and the attainment date of December 31, 1994 (only 46 days beyond the November 15, 1994 milestone date) will satisfy the first quantitative milestone. The de minimis timing differential makes it administratively impracticable to require separate milestone and attainment demonstrations. Thus, EPA's policy is to deem that the emissions reductions progress made between the SIP submittal due date and the attainment date will satisfy the quantitative milestone requirement for these areas. This is consistent with the purpose of the milestone requirement which is to "provide for emission reductions adequate to achieve the standards by the applicable attainment date" (H.R. Rep. No. 490, 101st Cong., 2d Sess. 267 (1990)). However, the Administrator is required to determine within 6 months after the applicable attainment date whether a nonattainment area has attained the standards (sections 179(c) and 188(b)(2)). Therefore, consistent with the milestone requirement, within 90 days after the attainment date, States must demonstrate that the SIP has been implemented and the area has attained the standards or alternatively, qualifies for a 1-year extension of the attainment date (section 188(d)). The EPA will issue future guidance on the RFP/quantitative milestone requirements for those areas designated moderate PM-10 nonattainment after enactment of the 1990 CAAA and for the serious PM-10 nonattainment areas.

(g) *PM-10 precursors.* Section 189(e) provides that the applicable control requirements under PM-10 nonattainment area SIP's in effect for major stationary sources of PM-10 are also applicable to major stationary sources of PM-10 precursors, except where EPA determines that the sources of PM-10 precursors do not contribute significantly to PM-10 levels which exceed the PM-10 NAAQS in the area. This determination will be based upon air quality analysis in which States assess the contribution of precursors. The contribution of precursors may be nonexistent. Alternatively, if precursors do contribute to nonattainment, States will need to consider both the source-receptor relationship and the significance of precursor contributions to overall nonattainment. Factors which may be considered in determining the source-receptor relationship include source mix and density, nonattainment area size, meteorology, and topography. In making a determination regarding significance and the need to control precursors in a specific area, EPA will rely in part on the technical information contained in the State's submittal, including filter analysis, the relative contribution of precursors to overall nonattainment, and the State's RACT/RACM strategy, among other factors. States, however, are encouraged to submit additional material for consideration, with all findings made on a case-by-case basis due to the high degree of variability among nonattainment areas. There will be variability, for example, in the characteristics of the area-wide

nonattainment problem in Spokane, Washington, which may warrant a finding of significance that differs from that made for a point source in Clairton, Pennsylvania. The EPA is required to issue guidance on this requirement. This General Preamble contains a lengthy discussion on control requirements for PM-10 precursors in moderate nonattainment areas and is intended to satisfy the requirement for guidance to the extent such guidance is required for moderate area SIP's having control requirements applicable to major stationary sources of PM-10. The EPA intends to provide additional guidance, if necessary, on control requirements for major stationary sources of PM-10 precursors when it issues proposed regulations for the NSR permit program applicable to PM-10 nonattainment areas, and when it issues guidance on the control technology requirements applicable to major stationary sources in serious PM-10 nonattainment areas.

(h) *RACM/RACT.* Section 189(a)(1)(C) of the amended Act requires that moderate area SIP's contain "reasonably available control measures" for the control of PM-10 emissions. Section 172(c)(1) of the amended Act, in turn, provides that RACM for nonattainment areas shall include "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 * * *." Thus, read together, these provisions require that moderate area PM-10 SIP's include RACM and RACT for existing sources of PM-10 emissions.

Under section 189(a) (1), (2) of the amended Act, initial moderate PM-10 nonattainment areas (i.e., those areas designated nonattainment upon enactment of the 1990 CAAA) must submit SIP's containing RACM/RACT control measures by November 15, 1991, and these SIP's must provide for the implementation of RACM/RACT no later than December 10, 1993. Those areas designated nonattainment and classified as moderate after enactment of the 1990 CAAA must submit SIP's containing RACM/RACT control measures 18 months after the nonattainment designation (see section 189(a)(2)(B)). These SIP's must provide for the implementation of RACM/RACT no later than 4 years after the affected areas are designated nonattainment, which is 30 months after the applicable SIP submittal deadline (see section 189(a)(1)(C)).

Note that serious area control requirements are briefly described here as background for subsequent discussion regarding the relationship between moderate and serious area control measures. As discussed above, moderate PM-10 nonattainment areas may be reclassified as serious. Pursuant to section 189(b), States having areas that are reclassified as serious must submit SIP's for the areas containing BACM which includes "the application of best available control technology to existing stationary sources" (H.R. Rep. No. 490, 101st Cong. 2d Sess. 267 (1990)).[17] The SIP's containing BACM/BACT provisions must be submitted within 18 months after the affected area is reclassified as serious (see section 189(b)(2)). These SIP's must provide for the implementation of BACM/BACT no later than 4 years after being reclassified, which is 30 months after the BACM/BACT submittal is due (see section 189(b)(1)(B)).

Under section 190, EPA must issue technical guidance for RACM and BACM by May 15, 1992 for three area source categories: Urban fugitive dust, residential wood combustion, and prescribed silvicultural and agricultural burning. This General Preamble satisfies EPA's obligation to issue guidance on RACM for these source categories. This guidance also updates previously-issued guidance regarding RACT for large stationary sources. The BACM guidance to facilitate SIP development in serious PM-10 nonattainment areas will be issued at a later date.

In addition to requiring RACM guidance for urban fugitive dust, residential wood combustion, and prescribed silvicultural and agricultural burning, section 190 requires that EPA examine other source categories contributing to nonattainment of the PM-10 NAAQS, determine if additional guidance for RACM and BACM is needed, and issue any such guidance by November 15, 1993. This document provides RACM guidance for sources of fugitive dust (including urban), residential wood combustion, and prescribed burning (including silvicultural and agricultural). The EPA believes, at this time, that these categories of sources are contributing to nonattainment of the PM-10 NAAQS. To the extent that these categories of sources are broader than, or in addition to, those expressly identified in section 190, the Administrator is by today's notice, determining that RACM guidance should be issued for these sources and is issuing such guidance. Section 190 also requires that EPA take into account the emission reductions achieved or expected to be achieved under title IV and other provisions in "issuing guidelines and making determinations under this section." In deciding whether to issue guidance for the categories of sources addressed in this document and in issuing this guidance, EPA has considered such emission reductions. The EPA does not believe, at this time, that actual or expected reductions from Title IV or other provisions will significantly reduce emissions from these sources. Preliminary guidance on many of the issues addressed herein was issued by EPA staff on April 2, 1991 to facilitate PM-10 SIP development for moderate nonattainment areas.

2. Determination of RACM/RACT

(a) *RACM.* The suggested starting point for specifying RACM in each SIP is the listing of available control measures for fugitive dust, residential wood combustion, and prescribed burning contained in appendices C1, C2, and C3. If a State receives substantive public comment demonstrating through appropriate documentation that additional control measures may well be reasonably available in a particular circumstance, those measures should be added to the list of available measures for that area. The RACM is then determined for the affected area's SIP. While EPA does not presume that these control measures are reasonably available in any or all areas, EPA expects States to prepare a reasoned justification for rejection of any available control measures. If it can be shown that one or more measures are unreasonable because emissions from the sources affected are insignificant (i.e., de minimis), those measures may be excluded from further consideration as they would not represent RACM for that area.[18] The resulting available control measures should then be evaluated for reasonableness, considering their technological feasibility and the cost of control in the

[17] The Act does not expressly define "best available control measures" (including "best available control technology") for PM-10 nonattainment purposes. Guidance on "best available control measures" (including "best available control technology") requirements to facilitate SIP development for serious PM-10 nonattainment areas will be issued by EPA at a later date.

[18] Where the sources affected by a particular measure contribute only negligibly to ambient concentrations that exceed the NAAQS, EPA's policy is that it would be unreasonable and therefore would not constitute RACM to require controls on the source. In this regard, it is worth noting that the inherent authority of administrative agencies to exempt de minimis situations from regulation has been recognized in contexts such as this where an agency is invoking a de minimis exemption as "a tool to be used in implementing the legislative design" [see *Alabama Power Co.* v. *Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979)].

area to which the SIP applies. In the case of public sector sources and control measures, this evaluation should consider the impact of the reasonableness of the measures on the municipal or other governmental entity that must bear the responsibility for their implementation (e.g., paving of unpaved public roads). It is important to note that a State should consider the feasibility of implementing measures in part when full implementation would be infeasible. The SIP submittal to EPA should contain a reasoned justification for partial or full rejection of any available control measures, including those considered or presented during the State's public hearing process, that explains, with appropriate documentation, why each rejected control measure is infeasible or otherwise unreasonable. When the process of determining RACM for an area is completed, the individual measures should then be converted into a legally enforceable vehicle (e.g., a regulation or permit program) (see sections 172(c)(6) and 110(a)(2)(A)). The regulations or other measures should meet EPA's criteria regarding the enforceability of SIP's and SIP revisions. These criteria were stated in a September 23, 1987 memorandum (with attachments) from J. Craig Potter, Assistant Administrator for Air and Radiation; Thomas L. Adams, Jr., Assistant Administrator for Enforcement and Compliance Monitoring; and Francis S. Blake, General Counsel, Office of the General Counsel, entitled "Review of State Implementation Plans and Revisions for Enforceability and Legal Sufficiency." As stated in that memorandum, SIP's and SIP revisions which fail to satisfy the enforceability criteria should not be forwarded for approval. If they are submitted, they will be disapproved if, in EPA's judgment, they fail to satisfy applicable statutory and regulatory requirements.

The technical guidance that discusses in detail the suggested initial measures in appendices C1, C2, and C3 and that a State should consider in determining which of the measures in appendices C1, C2, and C3 are technically feasible and economically reasonable in a particular area is contained in four documents: "Control of Open Fugitive Dust Sources," (EPA-450/3-88-008) September 1988; "Guidance Document for Residential Wood Combustion Emission Control Measures," (EPA-450/2-89-015) September 1989; "Prescribed Fire Smoke Management Guide" (NFES No. 1279), February 1985; and "Prescribed Fire Plan Guide" (NFES No. 1939), August 1986. These documents have been in use for several years and are based on substantial input from State and local agencies, trade groups and associations, and control experts. "Control of Open Fugitive Dust Sources" may serve as an example in analyzing control costs for a given area. Copies of these documents may be obtained by contacting National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

(b) *RACT.* This guidance follows EPA's historic definition of RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.[19] The RACT applies to the "existing sources" of PM-10 stack, process fugitive, and fugitive dust emissions (e.g., haul roads, unpaved staging areas) (see section 172(c)(1)). The EPA recommends that major stationary sources be the minimum starting point for RACT analysis. Generally, EPA recommends that available control technology be applied to those existing sources in the nonattainment area that are reasonable to control in light of the attainment needs of the area and the feasibility of such controls. Thus, EPA recommends that a State's control technology analyses for existing stationary sources go beyond major stationary sources in the area and that States require control technology for other sources in the area that are reasonable to control in light of the area's attainment needs and the feasibility of such control.[20] Specific guidance on the evaluation of the technological and economic feasibility of control technology for existing stationary sources is contained in appendix C4.

(c) *PM-10 precursors.* Section 189(e) of the amended Act provides that for all PM-10 nonattainment areas, the control requirements applicable under PM-10 SIP's in effect for major stationary sources of PM-10 are also applicable to major stationary sources of PM-10 precursors, except where EPA determines that such sources do not contribute significantly to PM-10 levels which exceed the PM-10 NAAQS in the area. Thus, for example, because moderate PM-10 nonattainment area SIP's should contain RACT for major stationary sources of PM-10, they should also contain RACT for major stationary sources of PM-10 precursors, unless EPA determines otherwise. Section 189(e) also requires that EPA issue guidance for the control of PM-10 precursors. This discussion represents EPA's guidance for controlling PM-10 precursors for major stationary sources in moderate PM-10 nonattainment areas.

As explained earlier (see section III.C.1.(g)), pursuant to the requirement of section 189(e), EPA intends to make a formal determination as to whether major stationary sources of PM-10 precursors contribute significantly to PM-10 levels in a particular area when it takes rulemaking action on the individual moderate area SIP's. However, a determination will be based on air quality analyses, on any additional technical information discovered by individual States during SIP development, and on any other studies conducted by the State or EPA which may help to indicate whether major stationary sources of specific precursors contribute significantly to PM-10 concentrations in a particular area. Therefore, while the subsequent discussion provides guidance as to EPA's implementation of section 189(e), and gives an indication of some of the factors that will guide EPA's findings under this section, none of the general views expressed herein are intended to preclude specific findings based on reviews of individual SIP's for PM-10 nonattainment areas.

The following discussion is intended to provide initial guidance with respect to each of the above named potential

[19] See, for example, 44 FR 53726 (September 17, 1979) and footnote 3 of that notice. Note that EPA's emissions trading policy statement has clarified that the RACT requirement may be satisfied by achieving "RACT equivalent" emissions reductions from existing sources.

[20] Note that Congress has not used the word "all" in conjunction with RACT in either the earlier law or as now amended. Thus, it is possible that a State could demonstrate that an existing source in an area should not be subject to a control technology especially where such control is unreasonable in light of the area's attainment needs or infeasible. Even if EPA was required to impose control technology on every existing stationary source, where a State demonstrates that available control technology for a source is infeasible or otherwise unreasonable, EPA would conclude that "reasonably" available control technology for that source constitutes no control or, stated differently, that no control technology for the source is "reasonably" available. As referenced above, section 172(c) of the amended Act provides that RACT should apply to "existing sources in the area. This is the same language that appeared in the RACT requirement under the CAA prior to the 1990 Amendments (see section 172(b)(3) of the pre-1990 CAAA law). Under the pre-amended law, EPA in effect interpreted the phrase "existing sources in the area" as it is interpreted here. EPA believes that Congress has placed its imprimatur on, if not adopted, EPA's prior interpretation of RACT (see, e.g. section 182(a)(2)(A) of the amended Act; see also section 193 of the amended Act (savings clause preserving prior EPA guidance except where inconsistent with the Clean Air Act Amendments)).

PM-10 precursors. Since the potential of SO_2 and NO_2 emissions to contribute significantly to PM-10 exceedances is more regionally dependent than VOC emissions, the following discussion focuses on general regional characteristics attributable to SO_2 and NOx emissions. In the western United States, (considered west of the 100th meridian for the purpose of this discussion), EPA believes that sources of SO_2 and NOx emissions may contribute to exceedances of PM-10 levels in several major metropolitan areas (e.g., Los Angeles, Salt Lake County, Utah County, Denver and the San Joaquin Valley). The EPA's conclusion with respect to these areas is based on the presence of factors which enhance the likelihood of secondary formation from these precursors, such as source mix and density, nonattainment area size, particular meteorology, and topography. Where nonattainment areas are relatively small in size, precursors are usually transported out of the area before secondary particles can form in significant quantity. However, due to the greater size of the areas mentioned above, pollutant transport between airsheds is considerably diminished; consequently, locally emitted PM-10 precursors remain in the area long enough to form secondary particles and make a significant contribution to the PM-10 problem in that area.[21] The particular combination of source mix, meterology, and topography in these major metropolitan areas rarely occurs in other areas in the West. For this reason, EPA believes that sources of SO_2 and NOx emissions are not as likely to be significant contributors to the nonattainment problem in those other areas. Therefore, if EPA determines, based on information contained in SIP submittals and any other available information, that major stationary sources of SO_2 and NOx in the Western United States do not contribute significantly to exceedances of the PM-10 standard, such sources would not be expected to meet the requirements that apply to major stationary sources of PM-10, (e.g., RACT). Further discussion on the need to apply RACT in PM-10 nonattainment areas is found in the sections below addressing control requirements for PM-10 nonattainment areas that do/do not demonstrate attainment.

Unlike the case in the Western United States, as a general matter, pollutant transport between airsheds in the Eastern United States can be responsible for a relatively large portion of secondary particle concentrations in nonattainment areas. Thus, the determination as to whether sources of PM-10 precursors in the nonattainment area would contribute significantly to PM-10 concentrations in the same area is correspondingly more difficult. Moreover, the characteristic contributions of the subject precursors vary. Sulfate compounds, for example, are generally known to be present in significant quantities in many eastern areas, while historically, nitrate compounds have been measured in relatively low concentrations throughout the East. As explained earlier, and as with VOC's, EPA will determine the applicability of section 189(e) based on technical and any other available information provided by States in their individual SIP submittals. However, when considering whether sources in PM-10 nonattainment areas should be required to adopt PM-10 precursor control, EPA will assess the reasonableness of the SIP submittal in light of the fact that substantial region-wide reductions of SO_2, NOx, and VOC emissions are expected to result from the implementation of the Act. These emissions reductions may mitigate precursor contributions due to PM-10 concentrations. The EPA will also take into account the historically low nitrate concentrations in the Eastern United States.

The EPA will also consider the information submitted by States containing major stationary sources of VOC's in areas which are in nonattainment for PM-10 to determine whether VOC emissions from such sources do/do not contribute significantly to exceedances of the ambient standard in their particular area. In considering the reductions to be achieved by controlling PM-10 precursors under section 189(e), Congress has indicated that EPA should take into account reductions achievable from control requirements imposed by other sections or titles of the 1990 Act.[22] Thus, along with their information addressing whether VOC's contribute significantly to PM-10 nonattainment in their area, States may wish to include in their SIP submittals a showing that control of VOC emissions under other Act requirments may suffice to relieve them of the need to adopt PM-10 precursor controls under section 189(e). Any such finding will be made by EPA based on information provided in the individual SIP submittal. Other Act control requirements which could be considered as contributing to VOC reductions are where, for example, areas which are nonattainment for PM-10 are also nonattainment for ozone and, thus, are already required to apply RACT on sources of VOC under section 182(b)(2). The VOC reductions may also be realized from new or modified major stationary sources due to the implementation of NSR programs in ozone nonattainment or attainment areas. When reviewing a SIP submittal containing a request for an exemption from PM-10 precursor controls under section 189(e) in pat because of actual or expected VOC reductions from other control requirements of the 1990 Act, EPA's determination will include an assessment of the reasonableness of the submission. This assessment by EPA will take into account the possible significance of differences between control strategies for PM-10 and other pollutants (e.g., requirements imposing BACT as opposed to RACT, and differences in attainment deadlines).

(d) *Condensible PM-10.* Condensible particulate matter (CPM) refers to particles which form in the atmosphere as the exhaust gases from a source cool. The CPM emissions form particles in the PM-10 size range and are considered PM-10 emissions (see, e.g., "PM-10 SIP Development Guideline," (June 1987) at p. 5-32 and 55 FR 41547 (October 12, 1990)). The EPA issued guidance on CPM in a December 24, 1990 memordandum from John Calcagni and William Laxton entitled "Interim Guidance on Emission Limits and Stack Test Methods for Inclusion in PM-10 SIP's." Generally, RACT for sources of CPM will be reviewed consistent with this guidance. In addition, EPA believes it is reasonable and therefore

[21] The focus here and elsewhere on transport between airsheds and on the characteristics of the nonattainment area flow from the statutory language of section 189(e) which states that in determining not to require RACT for major stationary sources of precursors, EPA must find that the sources do not contribute significantly to PM-10 levels which exceed the NAAQS "in the area." Thus, this provision EPA may determine that major stationary sources of precursors in a nonattainment area should not be subject to RACT because the sources do not contribute significantly to PM-10 levels in the same area.

[22] Congress recognized that sources of PM-10 precursors may be otherwise controlled. For example, the House Report states that "[t]he Committee notes that some of these precursors may well be controlled under other provisions of the Act" (H.R. Rep. No. 490, 101st Cong., 2d Sess. 268 (1990)). Moreover, Congress expressly recommended that EPA consider other provisions of the CAA in addressing precursors. The House Report states as follows: "The Committee expects the Administration to harmonize the PM-10 reduction objective of this section with other applicable regulations of this Act regarding PM-10 precursors, such as NOx" (H.R. Rep. No. 490 at 268). Throughout the discussion of PM-10 precursors EPA has relied on the actual and expected reductions from other CAA requirements and has attempted to reconcile these with the CAA's PM-10 attainment objective.

constitutes RACT to control CPM only where CPM is a significant portion of the emissions from an existing stationary source.[23] Further guidance on the identification of sources where a State's RACT analysis should consider CPM is found in "Assessment of the Controllability of Condensible Particulate Matter," published in October 1990. The EPA recognizes that this document is interim guidance and is still subject to review. Also, note that EPA has recently proposed to add a method for measuring CPM emissions from stationary sources to appendix M of 40 CFR part 51 (55 FR 41546, October 12, 1990).

(e) *Total suspended particulate (TSP) RACT.* Since 1979, EPA has taken action to approve a number of TSP nonattainment area SIP's that require RACT for existing stationary sources of TSP. As a technical matter, RACT level measures to control TSP emissions generally utilize technology that also effectively controls PM-10 emissions. Thus, EPA believes it is reasonable to generally presume that control technology which represents RACT for TSP emissions from a source satisfies the requirement of RACT for PM-10 emissions under the amended Act. However, the reasonableness of this control technology may be refuted for a particular source in a PM-10 nonattainment area by information which indicates that a level of PM-10 control greater than that achieved by the TSP RACT would constitute RACT for PM-10. Further, with respect to controls on stack and process fugitive emission points that represent RACT in currently-approved TSP SIP's, EPA specifically recommends that the emission limits be reviewed in light of improvements in control technology and reductions in control costs that may now make lower emission limits reasonable. In addition, regulations submitted as part of the PM-10 SIP should be reviewed to determine whether they meet EPA criteria regarding enforceability, as noted above (see sections 172(c)(6) and 110(a)(2)(A)). Consistent with the previous discussion on RACM, EPA will not approve any PM-10 SIP containing RACT measures that fail to meet applicable statutory and regulatory requirements for SIP enforceability.

In those PM-10 nonattainment areas that do not have previously-approved part D TSP nonattainment area plans, the particulate matter regulations for existing sources should be reviewed to determine if:

(1) Additional controls are necessary to meet RACT requirements.

(2) The regulations meet EPA's enforceability criteria. Similarly, existing regulations controlling emissions of specific PM-10 precursors should be reviewed on a case-by-case basis for major stationary sources in those areas and RACT analysis conducted unless the Administrator determines the source does not contribute significantly to PM-10 levels which exceed the NAAQS in the area.

Section 110(n)(1) of the amended Act provides that all TSP SIP's, including any revisions, that were approved or promulgated by EPA before enactment of the 1990 CAAA shall remain in effect until EPA approves or promulgates a revision to the SIP under the new law. Further, the General Savings Clause, section 193 of the amended Act, states that any control requirement in effect or required to be adopted by a SIP in effect before enactment of the 1990 CAAA for any area that is a nonattainment area for any air pollutant may not be modified unless the modification ensures equivalent or greater emissions reductions of such air pollutant. Thus, under section 110(n)(1), existing provisions of TSP SIP's remain in effect until such provisions are revised under the new law. Also, under section 193, modifications to TSP control requirements, such as TSP RACT, cannot be approved unless at a minimum they ensure equivalent emission reductions of PM-10.[24]

3. SIP's That Demonstrate Attainment

The SIP's for moderate nonattainment areas should provide for the implementation of control measures for area sources and control technology for stationary sources of PM-10 emissions which demonstrate attainment of the PM-10 NAAQS as expeditiously as practicable and no later than the applicable statutory attainment dates. Therefore, if a State adopts less than all available measures but demonstrates, adequately and appropriately, that (a) RFP and attainment of the PM-10 NAAQS is assured, and application of all such available measures would not result in attainment any faster, then a plan which requires implementation of less than all technologically and economically available measures may be approved.[25] The EPA believes it would be unreasonable to require that a plan which demonstrates attainment include all technologically and economically available control measures even though such measures would not expedite attainment. Thus, for some sources in areas which demonstrate attainment, it is possible that some available control measures may not be "reasonably" available because their implementation would not expedite attainment.

As provided in section 172(c)(9) of the amended Act, all moderate nonattainment area SIP's that demonstrate attainment must include contingency measures. These measures must be submitted by the initial moderate nonattainment areas no later than November 15, 1993 (See section 172(b)).[26] These measures become effective without further action by the State or EPA, upon determination by EPA that the area has failed to make RFP or to attain the PM-10 NAAQS by the applicable statutory deadline. These contingency measures should consist of other available control measures that are not included in the control strategy.

One basis EPA recommends for determining the magnitude of contingency measures is the amount of actual PM-10 emissions reductions required by the SIP control strategy to attain the standards. When developing a control strategy and demonstrating attainment with dispersion modeling, the State may determine that some actual emissions must be reduced and also some allowable emission limits must be reduced to the levels that the sources are actually emitting.

The contingency measures to be implemented if an area does not attain the standards on schedule should be a portion of the actual emissions reductions required by the SIP control strategy to bring about attainment. Therefore, the contingency emissions reductions should be approximately equal to the emissions reductions

[23] Where CPM emissions are a negligible portion of the emissions from an existing stationary source, EPA's policy is that such control may be excluded as being unreasonable for that source (See also *Alabama Power Co.* v. *Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979), discussed above). RACT for the source would therefore be no control or, stated alternatively, EPA would conclude that control technology for the source is not "reasonably" available.

[24] A moderate PM-10 area is a nonattainment area for any air pollutant within the meaning of section 193. Thus, for these areas, any modifications to any control requirements, including TSP, would have to ensure equivalent emission reductions of PM-10.

[25] See, e.g., 44 FR 20375 (April 4, 1979). See also 56 FR 5460 (Feburary 11, 1991).

[26] This deadline constitutes the formal establishment of the schedule according to which the initial PM-10 moderate nonattainment areas must submit the contingency measure requirement. The initial PM-10 nonattainment areas were designated nonattainment upon enactment by operation of law. See section 107(d)(4)(B). Under the schedule established today, contingency measures must be submitted no later than 3 years from the nonattainment designations for these areas which, in this instance, is no later than November 15, 1993.

necessary to demonstrate RFP for one year. For instance, reductions equal to 25 percent of the total strategy would be appropriate for a moderate nonattainment area since the control strategy must generally be implemented within a 3- to 4-year period between SIP development and the attainment date, and since RFP generally requires annual incremental reductions in emissions to attain the standards.

The contingency measures should consist of other available control measures beyond those required to attain the standards and may go beyond RACM. It is important not to allow contingency measures to obviate an adequate and appropriate control strategy demonstration.

Contingency measures must be implemented immediately after EPA determines the area has failed to make RFP or to attain the standards, i.e., if the shortfall constitutes a fraction of the area's annual reduction target, the measures to be implemented should address the specific deficiency indentity. The purpose of the contingency measure provisions is to ensure that corrective measures will automatically become effective at the time that EPA makes such a determination. The EPA is required to determine within 90 days after receiving a milestone demonstration and within 6 months after the attainment date (or 1 or 2 years later if extensions of the attainment date are granted), whether these requirements have been met (sections 179(c), 188(b)(2) and 189(c)(2)). Contingency measures must be fully adopted and take effect within 1 year without further legislative action once EPA makes such determinations.

Moderate areas that EPA finds have failed to attain the standards by the applicable date are reclassified as serious areas by operation of law (section 188(b)(2)). Guidance for serious areas addressing the contingency measure requirement will be issued at a later date.

4. SIP's That Do Not Demonstrate Attainment

In those moderate PM-10 nonattainment areas where the State's control strategy cannot demonstrate attainment by the applicable date mandated in the Act, the State should document that its control strategy represents the application of RACM, consistent with the "determination of RACM" discussion above, to existing sources. The EPA believes it is reasonable for all available control measures that are technologically and economically feasible to be adopted for areas that do not demonstrate attainment.

Areas that cannot practically demonstrate attainment of the PM-10 standards by the applicable attainment date will be reclassified as serious areas under section 188(b) and will be required to implement BACM, which includes the application of BACT to existing stationary sources (see H.R. Rep. No. 490, 101st Cong., 2d Sess. 276 (1990)). As discussed below, for those areas that will be reclassified as serious, EPA believes it may be reasonable, in some limited circumstances, for States to consider the compatibility of RACM and RACT with the BACM and BACT that will ultimately be implemented under the serious area plans for those areas.

In the case of RACM for area sources, EPA anticipates that any future implementation of BACM for these sources will be additive to, and hence compatible with, RACM. This is because BACM will generally consist of a more extensive implementation of the RACM measures (e.g., paving more unpaved roads, strengthening the components of a smoke management program, imposing additional requirements to improve the performance of wood burning devices). Since EPA anticipates that RACM and BACM for these sources will be compatible, the SIP's for these areas should reflect the application of available control measures to existing sources in moderate nonattainment areas as determined by the analysis described above for RACM.

As discussed previously, the determination of RACT for specific stack and process sources includes consideration of the technological and economic feasibility of control measures. In the case of those moderate PM-10 areas that were designated nonattainment upon enactment of the 1990 CAAA, EPA plans to reclassify those areas which EPA believes cannot practicably attain by December 31, 1994. Implementation of BACT will be required for sources in the initial moderate areas that EPA so reclassifies approximately 2 years after the deadline for implementation of RACT.[27] In many instances, the installation of pollution controls representing RACT may involve substantial capital expenditures. In the event that BACT is later required for those sources, this may require controls significantly incompatible with those recently installed as RACT, largely wasting those recent expenditures. Under such circumstances, the installation of controls in the first round of SIP planning would be unreasonable. Accordingly, SIP's for the initial moderate areas reclassified as serious in the mandatory reclassification rulemaking for these areas need not require major changes to the control systems for specific stack and process sources where a State reasonably demonstrates that such changes will be significantly incompatible with the application of BACT-level control systems. A State's demonstration should include, for example, showing what the State believes RACT and BACT are for the source and why they are significantly incompatible.

In the case of fugitive dust associated with stationary sources, EPA anticipates that the implementation of BACT will be compatible with the implementation of RACT. This is based on the fact that control of such emissions under BACT will generally be additive to RACT controls (i.e., consist of a more extensive application of fugitive dust control measures imposed as RACT). Therefore, EPA expects that to the extent that control of these sources is technologically and economically feasible, the SIP's for these areas must reflect the application of available control technology to address fugitive dust emissions associated with stationary sources.

(a) *Attainment date waiver nonanthropogenic sources).* Under section 188(f) of the amended Act, EPA may waive attainment dates for a moderate area where EPA determines that nonanthropogenic sources of PM-10 contribute significantly to a violation of the PM-10 NAAQS in the area. Thus, those States having moderate PM-10 nonattainment areas where significant contributions to PM-10 emissions come from sources not caused by humans directly or indirectly may request an attainment date waiver. However, EPA may only waive the attainment date for those moderate areas that fully implement their moderate area SIP requirements (see H.R. Rep. No. 490, 101st Cong., 2d Sess. 265 (1990)). Thus, any State having a moderate nonattainment area that the State believes may qualify for an attainment date waiver should be nevertheless

[27] Under section 189(a), moderate areas designated nonattainment at enactment must implement RACM (including RACT) by December 10, 1993. Under section 189(b) areas reclassified as serious must implement BACM (including BACT) within 4 years after reclassification. Thus, if EPA takes final action to reclassify areas in 1992, they will be required to implement BACT approximately 2 years after the December 10, 1993 implementation deadline for RACT.

proceeed with SIP development and implementation.

In addition, the legislative history suggests that Congress contemplated a narrow definition of what may qualify as "nonanthropogenic" and would limit it to activities where the human role in the causation of the pollution is highly attenuated (see generally H.R. Rep. No. 490). "The term 'anthropogenic sources' is intended to include activities that are anthropogenic in origin. An example of such sources is the dry lake beds at Owens and Mono Lakes in California, which give rise to dust storms that are a result of the diversion of water that would otherwise flow to such lakes and should be considered anthropogenic sources" (H.R. Rep. No. 490 at 265). The EPA intends to issue additional guidance on the scope of the waiver provision as it applies to both moderate and serious PM-10 nonattainment areas in the near future.

(b) *International border areas.* Under section 179B of the amended Act, a SIP for a moderate PM-10 nonattainment area affected by emissions originating from sources outside the United States shall be approved by the Administrator provided such plan meets all the applicable requirements under the Act (including, for example, RACM/RACT), other than a requirement that such a plan or revision demonstrates attainment of the PM-10 NAAQS by the applicable moderate area attainment date; and the SIP demonstrates that the area would attain by that date, but for the emissions emanating from outside of the United States. Generally, EPA expects that such areas will be adjacent to international borders (e.g., El Paso, Texas; Nogales, Arizona; Imperial Valley, California).

D. Sulfur Dioxide

1. Designations

The Act, following the 1977 CAAA, gave the primary authority for initiating designations to State Governors. Although State Governors continue to have authority to initiate the designation process (section 107(d)(3)(D)), the 1990 CAAA also give the EPA the authority to initiate and to promulgate designations (sections 107(d)(1), (3)).

(a) *Classification categories.* In general, areas may be designated as nonattainment, attainment, or unclassifiable for the NAAQS (section 107(d)(1)(C)), and they provide authority and schedules for designations of areas following promulgation of a new or revised NAAQS (section 107(d)(1)(A), (B)).

(b) *Basis of designation.* The SO_2 designations can be made on the basis of modeling or monitoring information which indicates attainment or nonattainment of the NAAQS. For example, an area might be designated nonattainment for violation of the primary SO_2 NAAQS, the secondary SO_2 NAAQS, or both.[28] More detailed information about the basis for designations under the new law is provided in the following discussions.

(c) *Methods of designations.* Some areas were designated "by operation of law" upon enactment of the 1990 CAAA based upon their status immediately before enactment. Areas which were designated nonattainment by operation of law (section 107(d)(1)(C)) are listed in 40 CFR part 81.

The EPA now has the authority to redesignate additional areas as nonattainment for SO_2. The first step in this process is for EPA to notify the affected State's Governor that available information indicates that the designation of an area in the State should be revised (section 107(d)(3)(A)). Section 107(d)(3)(A) provides that EPA may act (i.e., notify the Governor that an area should be redesignated) "on the basis of air quality data, planning and control considerations, or any other air quality related considerations the Administrator deems appropriate." No later than 120 days after receiving this notification, the Governor should submit appropriate redesignations to EPA (section 107(d)(3)(B)). If the Governor fails to act within 120 days of this notification, EPA shall promulgate the appropriate designation (section 107(d)(3)(C)). If the Governor does respond, within 120 days after EPA receives the Governor's response, EPA must promulgate a redesignation making any modifications EPA deems necessary (section 107(d)(3)(C)). If EPA intends to modify the Governor's redesignation submittal, then EPA must notify the Governor of the modifications no later than 60 days prior to the date EPA promulgates the redesignation (section 107(d)(3)(C)).

(d) *Criteria for redesignation.* The revised law sets forth specific requirements which govern the redesignation of an area from nonattainment to attainment (section 107(d)(3)(E)). The particular criteria for redesignating nonattainment areas to attainment (section 107(d)(3)(E)) include the following: The area has attained the NAAQS, the area has a fully approved (section 110(k)) implementation plan, the improvement in air quality is due to permanent and enforceable emissions reductions, the area has a maintenance plan meeting the requirements of section 175A, and the area meets all applicable requirements under section 110 and part D. The Agency will issue detailed guidance for States seeking redesignation of nonattainment areas to attainment at a later date.

2. Classifications

The classification provisions (section 172(a)(1)) give EPA the authority to classify nonattainment areas for the purposes of applying attainment dates (section 172(a)(2)(A)). In exercising this authority, EPA may consider such factors as the severity of the nonattainment problem or the availability and feasibility of the pollution control measures. Based upon the classification, EPA may set later attainment dates for areas with more severe air quality problems (section 172(a)(2)(A)). At the present time, EPA does not intend to establish a specific classification scheme for areas which violate the primary or the secondary SO_2 NAAQS.

3. Plan submission Deadlines

Submission deadlines for States to submit implementation plans (part D Plans) for SO_2 NAAQS are given in section 191. Explicit plan submission deadlines are given for nonattainment areas which violate the primary SO_2 NAAQS (section 191). Explicit plan submission deadlines are not given for nonattainment areas that violate only the secondary or both the primary and secondary SO_2 NAAQS, however.

(a) *Initial nonattainment areas.* States with existing nonattainment areas for the primary SO_2 NAAQS where those areas lack fully approved SIP's, including part D plans, must submit implementation plans (section 191(b)). These implementation plans must meet the requirements of subpart 1 of part D, and they must be submitted within 18 months after enactment of the 1990 CAAA (i.e., by May 15, 1992).

(b) *Subsequent nonattainment areas.* States with areas that are designated or redesignated, after 1990 CAAA enactment, as nonattainment areas for the primary SO_2 NAAQS must submit implementation plans (section 191(a)). These implementation plans must meet the requirements of part D and the plans must be submitted within 18 months of the designation or redesignation.

(c) *Secondary NAAQS.* In the past, Congress and the Agency has required more expeditious resolution of nonattainment for primary NAAQS than

[28] The primary SO_2 NAAQS, is that level which is "requisite to protect the public health" (section 109(b)(1)). The secondary SO_2 NAAQS, is that level which is "requisite to protect the public welfare" (section 109(b)(2)).

for secondary NAAQS. Examples of this are the availability of 18-month extensions for implementation plan submittals for secondary NAAQS (section 110(b)), and the discretion allowed in dates for attainment of secondary NAAQS (section 110(a)(2)(A)).

For areas which violate both primary and secondary NAAQS, allowing separate schedules for secondary and primary plans unnecessarily complicates the plan implementation and processing. Therefore, EPA expects secondary NAAQS attainment plans to be submitted on the same schedule as plans for the primary NAAQS for these areas.

As a result of the 1990 CAAA, EPA has the authority to establish a schedule for submittal of a secondary NAAQS plan or plan revision (section 172(b)). The EPA must establish this schedule at the time of the nonattainment designation. The SIP must be submitted no later than 3 years from the date of the nonattainment designation. Although the law allows up to 3 years for SIP submittal, because the level of control is no more difficult to establish than for the primary NAAQS, and absent compelling justification by a State, EPA will require SIP's for these areas within 18 months of nonattainment designation.

4. Attainment Dates.

In the 1990 CAAA, Congress set specific attainment dates for nonattainment areas which were found to violate the primary SO_2 NAAQS.[29] Attainment dates for nonattainment areas violating either just the secondary or both the primary and secondary SO_2 NAAQS were not specified although Congress deleted the requirement that the secondary NAAQS be attained by a "reasonable" time for attainment of secondary NAAQS (section 110(a)(2)(A)).

The 1990 CAAA require attainment of both the primary and secondary NAAQS "as expeditiously as practicable" (section 172(a)(2) (A) and (B)). Although the 1990 CAAA give EPA authority to establish flexible attainment dates (section 172(a)(2)(A)-(C)), this flexibility does not apply to areas which have specific attainment dates (section 172(a)(2)(D)). Specifically, the flexibility does not apply to attainment of the primary SO_2 NAAQS because the attainment date is specified for primary SO_2 nonattainment areas (section 192), but it does apply to secondary SO_2 NAAQS because the 1990 CAAA do not specify an attainment date for secondary SO_2 nonattainment areas.

(a) *Initial nonattainment areas.* Areas which were designated nonattainment at the time of enactment (i.e., areas which are nonattainment by operation of law), must attain the primary NAAQS as expeditiously as practicable but no later than 5 years after enactment of the 1990 CAAA (i.e., by November 15, 1995) (section 192(b)).

(b) *Subsequent nonattainment areas.* Areas which are redesignated as nonattainment, subsequent to the November 15, 1990 date of enactment, must attain the primary NAAQS "as expeditiously as practicable," but not later than 5 years after the nonattainment designation (section 192(a)).

(c) *Inadequate plan areas (SIP call areas).* Some nonattainment areas have plans which were approved by EPA before enactment of the 1990 CAAA. If, subsequent to the plan's approval, EPA finds that such a plan is substantially inadequate, the plan must be revised to provide for attainment. The revised plan must provide attainment of the primary NAAQS within 5 years from the finding of inadequacy (section 192(c)).

(d) *Attainment of secondary NAAQS.* The 1977 CAAA set the attainment date for secondary NAAQS as "a reasonable time" (section 110(a)(2)(A)). This was consistent with the requirements of the 1970 Act. At the same time, for the new part D nonattainment areas, section 172(a)(1) established the attainment date for secondary NAAQS as "as expeditiously as practicable." The EPA reiterated in regulations that "a reasonable time" after plan approval was allowed for attainment of the secondary NAAQS (40 CFR 51.110(c)(1)).

In the 1990 CAAA, Congress provided for attainment "as expeditiously as practicable" in both primary and secondary nonattainment areas (section 172(a)(2)). Congress set a specific attainment date of 5 years for primary NAAQS (see above) but did not set a specific deadline for attainment of secondary NAAQS (section 192). At the same time, Congress deleted section 110(a)(2)(A), which had stated that attainment dates should generally not exceed 3 years from plan submittal (section 110(a)(2)(A)). This implies that the only test for the approvability of a secondary NAAQS attainment date is whether or not the date is "as expeditiously as practicable" (section 172(a)(2)(B)).

To maintain continuity with past program guidance, EPA plans to allow attainment with the secondary NAAQS to be scheduled on the basis of what is expeditious for the area (section 193). Areas which are nonattainment for the secondary SO_2 NAAQS may be allowed additional time for attainment beyond the deadlines mandated for the primary NAAQS. In general, EPA will rely on the substantive provisions of 40 CFR 51.340 (subpart R) to determine expeditiousness.

Areas which are nonattainment for both the primary and secondary NAAQS may split their attainment dates, i.e., attain the primary NAAQS within 5 years and attain the secondary NAAQS as expeditiously as practicable. This will be acceptable provided that the State can demonstrate that the secondary NAAQS cannot be attained within the same timeframe as the primary NAAQS.

5. Nonattainment Plan Provision

(a) *Overview.* The 1970 Act required States to submit implementation plans which would indicate how the State would attain and maintain the NAAQS. The requirements for these general SIP's were listed in part A, section 110. In the 1977 CAAA, requirements for implementation plans in nonattainment areas were given in part D (section 171-178). These requriements addressed a number of issues including, but not limited to, attainment dates, permit requirements, and planning procedures.

The 1990 CAAA have not made significant changes in the plan requirements for SO_2 nonattainment areas (section 172). For this reason, States may generally continue to rely on past guidance for SO_2 programs. This position is further supported by the General Savings Clause contained in section 193. A summary of existing policy and guidance may be found in the "SO_2 Guideline," the "Guideline On Air Quality Models (revised)," and other documents listed in Appendix B. Despite the continued validity of past guidance in the implementation of the amended Act for SO_2 NAAQS, there are some areas of policy that need to be clarified. One area that will need policy clarification is the issue of plan approval. The EPA intends to consider only the final rulemaking status of the

[29] The 1977 CAAA continued the requirement from the 1970 CAA that States submit implementation plans which provided for attainment of primary NAAQS "as expeditiously as practicable but * * * in no case later than three years" from the date of approval of the plan (1977 CAAA section 110(a)(2)(A)). For secondary NAAQS, attainment was required within "a reasonable time" (section 110(a)(2)(A) after the 1977 CAAA).

For part D nonattainment areas, the 1977 CAAA required attainment for both primary and secondary NAAQS nonattainment areas "as expeditiously as practicable" but for primary standards, a deadline of December 31, 1982 was also given (part D, section 172(a)(1) after the 1977 CAAA).

SIP at the time of enactment in relationship to the requirements of the 1990 CAAA. This is consistent with the Savings Clause for existing plan provisions (section 110(n)(1)). If the nonattainment area had a part D plan that was approved prior to enactment, the EPA will not require a new part D SIP. For these areas, a new part D SIP will not be required regardless of whether the attainment date for the area had passed at the time of encactment of the 1990 CAAA. However, if the approved plan was not a part D plan, the State will have to submit a complete part D plan to EPA for approval because part D plans are requried for nonattainment areas (section 191(b)).

Policy clarification is also needed concerning the status of areas that lack approved part D plans and that contain a SO_2 emission source that has permanently shut down. A minimum of two actions are required for States wishing to establish that these areas are inoperative for SIP purposes.

The first action is that the State must provide EPA with sufficient evidence to establish that the source has in fact been permanently shut down. Three criteria exist for establishing permanent source shutdown. These criteria require proof that the source has been inoperative for at least the 2 preceding years, that the source is precluded from resuming operations, and that the source has been withdrawn from the State's emissions inventory.

The second action is that the State must establish that fully-approved NSR and PSD programs are in place so that the source would be required to undergo NSR prior to start-up if it were reactivated.

After the State has completed these actions, EPA will consider additional plan requirements of such areas on a case-by-case basis. Alternatively, the State may choose to submit complete part D plans to EPA for these areas. As discussed in a previous section on redesignation, section 107(d)(3) provides that a nonattainment area must meet all the requirements set forth in section 107(d)(3)(E), including a maintenance plan consistent with section 175A, before it may be redesignated to attainment. The EPA recognizes that this issue is of immediate concern to some States and Regions. The EPA will issue guidance concerning plan requirements and redesignation requirements in the future.

(b) *Issues*—(1) *RACT.* For most criteria pollutants, RACT is control technology that is reasonably available considering technological and economic feasibility (see memorandum from R. Strelow, December 9, 1976). The definition of RACT for SO_2 is that control technology which is necessary to achieve the NAAQS (40 CFR 51.100 (*o*)). Since SO_2 RACT is already defined as the technology necessary to achieve NAAQS, control technology which failed to achieve the SO_2 NAAQS would, by definition, fail to be SO_2 RACT.

The EPA intends to continue defining RACT for SO_2 as that control technology which will achieve the NAAQS within statutory timeframes.

(2) *RFP.* Section 171(1) of the amended Act defines RFP as "such annual incremental reductions in emissions of the relevant air pollutant as are required by this part (part D) or may reasonably be required by EPA for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date." This definition is most appropriate for pollutants which are emitted by numerous and diverse sources, where the relationship between any individual source and the overall air quality is not explicitly quantified, and where the emission reductions necessary to attain the NAAQS are inventory-wide. The definition is generally less pertinent to pollutants such as SO_2 which usually have a limited number of sources, relationships between individual sources and air quality which are relatively well defined, and emissions control measures which result in swift and dramatic improvement in air quality. That is, for SO_2, there is usually a single "step" between pre-control nonattainment and post-control between pre-control nonattainment and post-control attainment.

Therefore, for SO_2, with its discernible relationship between emissions and air quality and significant and immediate air quality improvements, RFP will continue to be construed as "adherence to an ambitious compliance schedule." [30]

(3) *Contingency measures.* Section 172(c)(9) of the amended Act defines contingency measures as measures in a SIP which are to be implemented if an area fails to make RFP or fails to attain the NAAQS by the applicable attainment date. Contingency measures become effective without further action by the State or EPA, upon determination by EPA that the area has failed to (1) make reasonable further progress or (2) attain the SO_2 NAAQS by the applicable statutory deadline. These contingency measures shall consist of other available control measures that are not included in the control strategy.

The EPA interprets the contingency measure provisions as primarily directed at general programs which can be undertaken on an areawide basis. Again, SO_2 presents special considerations. First, for some of the other criteria pollutants, the analytical tools for quantifying the relationship between reductions in precursor emissions and resulting air quality improvements remain subject to significant uncertainities, in contrast with procedures for pollutants such as SO_2. Second, emission estimates and attainment analyses can be strongly influenced by overly-optimistic assumptions about control efficiency and rates of compliance for many small sources. In contrast, controls for SO_2 are well understood and are far less prone to uncertainty. Since SO_2 control measures are by definition based upon what is directly and quantifiably necessary to attain the SO_2 NAAQS, it would be unlikely for an area to implement the necessary emissions control yet fail to attain the NAAQS. Therefore, for SO_2 programs, EPA interprets "contingency measures" to mean that the State agency has a comprehensive program to identify sources of violations of the SO_2 NAAQS and to undertake an aggressive follow-up for compliance and enforcement, including expedited procedures for establishing enforceable consent agreements pending the adoption of revised SIP's.

This definition of minimum contingency measures for SO_2 does not preclude a State from requiring additional contingency measures that are enforceable and appropriate for a particular source or source category.

(4) *Stack height issues and remand.* Three provisions of the stack height rules have been remanded to EPA as a result of the court decision in *NRDC* v. *Thomas*, 838 F.2d 1224 (D.C. Cir.), cert. denied, 109 S.Ct. 219 (1988). The EPA has allowed States to move ahead on affected SIP revisions without regard to the remanded section of these rules, but with the caveat that the States must remain aware of the status of these rules, and may be required to take action at a later date to respond to any rule revisions resulting from the remand (see, "Interim Policy on Stack Height Regulatory Actions," J. Craig Potter, April 22, 1988.)

(5) *Existing modeling protocols.* The amended Act requires submittal of a complete SIP 18 months from enactment or nonattainment designation (section

[30] U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, "Guidance Document for Correction of part D SIP's for Nonattainment Areas," (Research Triangle Park, North Carolina: January 27, 1984), page 25.

191). This 18-month submittal, supported by a guideline model, must be completed even in cases where the modeling protocol is currently under review. Equivalent models to those approved for regulatory use in EPA's "Guideline on Air Quality Models (Revised)" might not be approved in sufficient time to complete SIP development and submittal within the statutory deadline. Therefore, States should proceed with existing guideline models, without deviation from the model guideline, to fulfill the requirements of the 18-month SIP submittal.

If States and/or source owners wish to complete work on alternative models, they may do so. If EPA accepts the alternative models, then the SIP may be revised accordingly. However, if the alternative model is not completed in a timely fashion, or if the alternative is unacceptable, an acceptable regulation must be in place to assure expeditious attainment and to avoid sanctions for failure to submit a SIP (section 172(c)(8)).

The Act as amended in 1990 gives EPA authority to prescribe modeling procedures to determine the effect of emissions on ambient air quality (Part D and section 110(a)(2)(K)(i)). The EPA plans to rely on its "Guideline on Air Quality Models (Revised)" as the basis for all prescribed procedures and is in the process of revising 40 CFR part 51 to effect this requirement.

(6) *Test methods and averaging times.* The NAAQS are expressed as maximum ambient concentrations that are to be met on a continuous basis. Consequently, States must demonstrate that source emission limitations, averaging times, and compliance monitoring methods are sufficient to assure compliance with the air quality standards. The choice of a monitoring technique should consider regulatory needs, monitoring technology costs, and the relative benefits of one technique versus another.

Continuous emission monitoring systems (CEMS) are a reliable technique for continuously monitoring emissions of SO_2 for many source categories. Detailed guidance documents for determining CEMS feasibility in indiviudal cases are listed in section III.D.6. of this preamble (see letters from W. Reilly to J. Dingell, April 10, 1991). Further guidance is being developed. In general, the criteria for determining when CEMS are appropriate are as follows:

i. Any source where there is an established new source performance standard (NSPS) which requires CEMS for determining compliance should rely on this method in the SIP. For example, any utility boiler that physically meets the applicability requirements of 40 CFR part 60, subpart Da, whether it is an "existing boiler" under 40 CFR part 60, subpart Da or not, must have CEMS for NSPS compliance and should therefore rely on CEMS for SIP compliance as well.

ii. Any source that has other regulatory requirements with CEMS as the compliance method should rely on CEMS as the SIP compliance method as well.

The feasibility of using CEMS as the compliance method has already been established for sources that fall into these two categories. For example, in developing NSPS, the Agency has already considered cost, environmental, and energy impacts for these standards. Where CEMS are not technically or economically feasible in other cases, other appropriate continuous monitoring techniques, such as continuous compliance of relevant process parameters or alternatives approved by EPA under title IV, would be appropriate.

(7) *Enforceability.* The SIP measures should be converted into a legally-enforceable vehicle (e.g., a regulation or permit). The regulations or other measures should meet EPA's criteria regarding the enforceability of SIP's and SIP revisions.

Guidance on enforceability requirements has been provided to Regional Offices in various memoranda (see Bauman/Biondi and Potter/Adams/Blake memoranda listed in section III.D.6. of this preamble. Those SIP's and SIP revisions which fail to satisfy the enforceability criteria should not be forwarded for approval. If they are submitted, they will be disapproved if, in EPA's judgement, they fail to satisfy applicable statutory and regulatory requirements.

(8) *Maintenance plans.* As discussed previously, section 107(d)(3) of the amended Act (see subparagraphs A and E of section 107(d)(3) as well as section 175A) requires that nonattainment areas must have a fully-approved maintenance plan meeting the requirements of section 175A before they can be redesignated to attainment. Section 175A(a) mandates, among other things, that a State must submit a SIP revision which provides for maintenance of the NAAQS for at least 10 years after the redesignation to attainment (section 175A(a)). A subsequent SIP revision providing for maintenance of the NAAQS for an additional 10 years is due 8 years into the first 10-year maintenance period.

The law does not provide any exceptions to the maintenance plan requirement. Therefore, in addition to meeting all pre-existing requirements, areas which are designated nonattainment by operation of law (section 107(d)(1)(C)(i)), as well as areas which are designated nonattainment in the future (section 107(d)(3)), must all submit maintenance plans before they can be redesignated to attainment.

The EPA will issue guidance on the contents of section 175A maintenance plans at a later date.

(9) *NSR.* As specified in section 302(j), for SO_2 nonattainment areas the term major stationary source means any stationary source which directly emits, or has the potential to emit, 100 tons per year or more of SO_2. To meet the requirements of section 172(c)(5), States must submit a permit program that meets all the permit requirements of section 173 for the construction and operation of new and modified stationary sources of SO_2.

6. Sources of SO_2 Policy and Guidance

Unless otherwise noted, the guidance documents and sources listed below were developed by the EPA's Office of Air Quality Planning and Standards (OAQPS) located in Research Triangle Park, North Carolina. The EPA plans to address additional policy questions by periodically issuing memorandums which offer guidance in a question-and-answer format. See also:

(a) *SO_2* Guidance.

(1) SO_2 Guideline, October 1989.

(2) SO_2 Guideline Appendices, October 1989.

(3) Letter from William Reilly to Representative John Dingell, in response to questions and GAO report, April 10, 1991.

(4) Memorandum from Craig Potter, Thomas Adams, and Francis Blake to Air Division Director, Regions I–X, "Review of State Implementation Plans and Revisions for Enforceability and Legal Sufficiency," September 23, 1987.

(5) Memorandum from Gerald A. Emison, Director, OAQPS, to Air Division Director, Regions I–X, "Transmittal of Reissued OAQPS CEMS Policy," March 31, 1988.

(6) "Approval and Promulgation of Implementation Plans; Dearborn, Lake, and Porter Counties, Indiana, " 54 FR 612, January 9, 1989.

(7) Memorandum from Robert Bauman and Rich Biondi to Air Branch Chiefs, "SO_2 SIP Deficiency Checklist," November 28, 1990.

(8) Memorandum from Gerald Emison, Director, OAQPS, to David Kee, Director, Air Management Division, Region V, "Need for a Short-Term BACT Analysis for the Proposed William A. Zimmer Power Plant," November 24, 1986.

(b) *SIP Guidance.* (1) Guidance Document for Correction of Part D SIP's for Nonattainment Areas, January 27, 1984.

(2) Memorandum from R. Strelow to Regional Administrator, Regions I–X, "Guidance for Determining Acceptability of SIP Regulations in Non-Attainment Areas," December 9, 1976.

(c) *Modeling Guidance.* (1) "Guideline on Air Quality Models" (Revised), July 1986.

(2) "Interim Procedures for Evaluating Air Quality Models: Experience with Implementation," July 1985.

(3) Model Clearinghouse.

(d) *New Source Review Guidance.* (1) Memorandum from Richard Rhoads, Director CPDD, to Division Director, Regions I–X, "Growth Restrictions in Secondary NAAQS Nonattainment Areas," October 28, 1980.

(2) New Source Review Prevention of Significant Deterioration and Nonattainment Area Guidance Notebook, January 1988.

(3) Guidance on State Operating Permit Programs, Federal Register notice, June 1989.

(4) NSR Electronic Bulletin Board, Computerized Compilation of Previous and Latest NSR Policy Memoranda and Technical Information Items, Federal Register notice, January 1990.

(5) "Draft Workshop Manual for New Source Review (NSR) Programs," December 1990.

(6) Memorandum from J. Seitz, OAQPS, to Air Division Director, Regions I–X, "New Source Review (NSR) Program Transitional Guidance," March 11, 1991.

E. Lead

1. Statutory Background

(a) *Designations.* In 1978, when EPA promulgated the lead NAAQS, EPA believed that implementation and maintenance of the lead NAAQS should be in accordance with the SIP requirements set forth in section 110 and not part D. The EPA believed that section 107—and and part D requirements—were intended by Congress to apply only to NAAQS which were set prior to 1977. In these cases, SIP's had already been adopted, the attainment dates had already passed, and the SIP's had proven to be inadequate. The designation process was intended as a mechanism to initiate new SIP revisions for those existing NAAQS. Since the attainment date for the lead NAAQS at that time had not yet arrived, no lead SIP's had yet been proven inadequate. Consequently, lead did not meet the circumstances which initially resulted in a need for nonattainment designations and plan revisions under part D.

The Act, as amended, clearly defines EPA's authority to designate areas for lead. Section 107(d)(5) authorizes EPA to require States to designate areas (or portions thereof) as nonattainment, attainment or unclassifiable with respect to the lead NAAQS in effect as of the date of enactment of the 1990 CAAA.[31] As provided in section 107(d)(5), these lead areas are to be designated pursuant to the procedures outlined in section 107(d)(1)(A) and (B) except that certain timeframes of subparagraph (B) have been modified by section 107(d)(5). Section 107(d)(1)(A) permits EPA to require the Governors of affected States to submit recommended designations for the areas EPA seeks designated in a timeframe that EPA deems reasonable. This timeframe, however, can be no sooner than 120 days nor later than 1 year after the date EPA notifies the State of the requirement to submit such designations. Section 107(d)(1)(B) requires that EPA must then promulgate these designations no later than 1 year after notifying the State of the requirement to designate areas for lead. The EPA may make any modifications deemed necessary to the designations submitted by the State (see generally section 107(d)(1)(B) of the Act). However, no later than 120 days before promulgating a modified area, EPA must notify the affected State and provide an opportunity for the State to demonstrate why any proposed modification is inapporpriate.

If the Governor of an affected State fails to submit the required lead designations, in whole or in part, EPA is required to promulgate the designation that it deems appropriate for any area (or portion thereof) not designated by the State.

(b) *Area boundaries.* States should identify the boundaries of the nonattainment areas when submitting nonattainment designations for lead. A lead nonattainment area consists of that area which does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the lead NAAQS (see section 107(d)(1) of the amended Act). Generally, EPA recommends that the lead nonattainment boundary be defined by the perimeter of the county in which the ambient lead monitor(s) recording the violation is located. In addition, if the ambient monitor measuring violations is located near another county, then EPA recommends that the other county also be designated as nonattainment for lead. In some situations, however, a boundary other than the county perimeter may be appropriate. States may choose alternatively to define the lead nonattainment boundary by using any one, or a combination, of the following techniques: Qualitative analysis, spatial interpolation of air monitoring data, or air quality simulation by dispersion modeling. These techniques are more fully described in "Procedures for Estimating Probability of Nonattainment of a PM–10 NAAQS Using Total Suspended Particulate or PM–10 Data," December 1986. The EPA recommends that the State submit a defensible rationale for the boundary chosen with the Governor's designation for an area.

(c) *Classification.*[32] Section 172(a)(1)(A) of the amended Act authorizes EPA to classify areas designated as nonattainment for the purposes of applying an attainment date pursuant to section 172(a)(2) or for other reasons. In determining the appropriate classification, EPA may consider such factors as the severity of the nonattainment problem and the availability and feasibility of the pollution control measures (see section 172(a)(1)(A) of the amended Act). The EPA may, but is not required to, classify lead nonattainment areas. At this time, EPA does not intend to classify lead nonattainment areas with respect to the lead NAAQS in effect on date of enactment of the 1990 CAAA. That is, while section 172(a)(1)(A) provides a mechanism to classify nonattainment areas, section 172(a)(2)(D) provides that the attainment date extensions described in section 172(a)(2)(A) do not apply to nonattainment areas having specified attainment dates under other provisions of part D. Section 192(a) specifically provides an attainment date for areas designated as nonattainment for the lead NAAQS in effect at the date of enactment of the 1990 CAAA. Therefore, EPA has legal authority to classify lead nonattainment areas, but

[31] Section 107(d)(5) of the amended Act does not indicate that all areas of the State must be designated. At this time, EPA has only requested that specified areas within affected States be designated. Therefore, most States and the vast majority of the areas within affected States will still have no designations, i.e., will not be designated as attainment, nonattainment, or unclassifiable for lead.

[32] It is important to note that classifications and designations are separate concepts. Designations refer to an area's attainment status (i.e., the area is designated attainment, nonattainment, or unclassifiable). Classifications are applied to areas designated nonattainment and are a mechanism for addressing differences among nonattainment areas. For example, classifications usually result in applying additional control measures and providing longer attainment deadlines for those areas having more serious nonattainment problems.

the 5-year attainment date under section 192(a) cannot be extended pursuant to section 172(a)(2)(D), and EPA deems it inappropriate to establish a classification scheme within the 5-year interval.

(d) *Plan submission.* Generally, the date by which a plan must be submitted for an area is trigggered by the area's nonattainment designation. For areas designated nonattainment for the primary lead NAAQS in effect at enactment of the 1990 CAAA, States must submit SIP's which meet the applicable requirements of part D of the Act within 18 months of an area's nonattainment designation (see section 191(a) of the amended Act).

(e) *Attainment dates.* Generally, the date by which an area must attain the lead NAAQS also is triggered by the area's nonattainment designation. For areas designated nonattainment for the primary lead NAAQS in effect at enactment of the 1990 CAAA, SIP's must provide for attainment of the lead NAAQS as expeditiously as practicable but no later than 5 years from the date of an area's nonattainment designation (see section 192(a) of the amended Act).

2. Pre-SIP Submittal Activities

As discussed above, any States containing an area designated as nonattainment with respect to the lead NAAQS in effect at enactment of the 1990 CAAA must develop and submit a part D SIP providing for attainment. Most of the general part D nonattainment plan provisions are set forth in section 172(c). The SIP's submitted to meet the part D requirements must, among other things, include RACM, RACT, provide for RFP, contain contingency measures and require permits for the construction and operation of major new and modified stationary sources. This portion of the General Preamble does not address more specifically RACM, RFP, contingency measures, or some of the other part D SIP requirements for lead nonattainment areas. States should nonetheless proceed, consistent with more general guidance on part D requirements to collect information and data necessary to complete SIP analyses. A listing of some of the specific SIP activities States should be completing is described below. The EPA will continue to evaluate the need for more detailed guidance on the part D lead SIP requirements as it proceeds with nonattainment designations for lead.

(a) *Nonattainment NSR.* Previously, areas that were not attaining the lead NAAQS were not designated as nonattainment and therefore were not required to have a nonattainment NSR program consistent with section 173 of the Act. However, now that there will be areas designated nonattainment for lead, a nonattainment NSR program is required for such areas. Specifically, section 172(c)(5) requires that States having areas designated nonattainment for lead submit as part of the applicable SIP, provisions requiring permits for the construction and operation of new or modified major stationary sources anywhere in the nonattainment area, in accordance with section 173. Further guidance is provided in the March 11, 1991 memorandum from John Seitz, entitled "New Source Review (NSR) Program Transitional Guidance to Implement the Clean Air Act Amendment Changes that Affect NSR" which is found in Appendix D. Among other things, the March 11, 1991 memorandum addresses the interim NSR requirements applicable to an area upon its designation as nonattainment for lead but before the amended law provides for submittal of its NSR program. The EPA generally recommends that States evaluate their existing rules to determine whether there are any impediments to implementing a nonattainment NSR program in the areas designated as nonattainment for lead.

(b) *Emission inventories.* An emissions inventory is required to determine the nature and extent of the specific control strategies that are needed. Emissions inventories should be based on measured emissions or documented emission factors. The more comprehensive and accurate the inventory, the more effective the control evaluation (see section 172(c)(3) of the amended Act which specifies that nonattainment area SIP's include "a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in such area * * *"). The States should begin to evaluate the type of emissions inventory that needs to be developed and the type of information that needs to be collected to support a SIP submittal. Postponing completion of the emissions inventory could jeopardize the submittal of the lead SIP within the statutorily-mandated deadlines.

The following documents provide further information for lead emissions inventory development: Draft Manual "Updated Information on Approval and Promulgation of Lead Implementation Plans," EPA, July 1983; "Guideline Series, Development of an Example Control Strategy for Lead," April 1979; and "Guideline Series, Supplementary Guideline for Lead Implementation Plans," August 1978.

(c) *Modeling and meteorological monitoring.* The lead SIP regulations at 40 CFR 51.117 require that atmospheric dispersion modeling be employed for the demonstration of attainment for areas in the vicinity of point sources listed in 40 CFR 51.117(a)(1).[33] To complete the necessary dispersion modeling, meteorological and other data will be necessary. At this time States should be evaluating whether the necessary meteorological data are available and, if not, determine what needs to be done to obtain these data. Dispersion modeling should follow the procedures outlined in the "Guideline On Air Quality Models (Revised)." The "Guideline" indicates that if on-site meteorological stations are used, 12 months of data are required. Postponing the decision to determine whether on-site stations need to be established could jeopardize the submittal of the lead SIP within the statutorily-mandated deadlines.

(d) *Control measures.* As indicated above, EPA is not at this time providing guidance on the RACM measures specific to lead SIP's. States should, however, continue to rely on guidance issued for the control of particulate emissions. In light of the fact that some SIP's are due July 6, 1993, EPA recommends that States focus their efforts more specifically now on evaluations of the affected lead sources. The EPA believes that the efforts States should undertake include an assessment of operation and maintenance (O & M) and work practice measures. In addition, State efforts should identify and analyze control measures which reduce process fugitive and lead-bearing open dust emission sources. These evaluations should consider the technological feasibility of additional control measures, as well as the cost of the identified options.

3. Transition Issues

(a) *Transition from pre-amended law.* As mentioned, under the pre-amended law there were no designations for lead,

[33] Generally, in addition to meeting applicable requirements under part D of title I of the amended Act, SIP's for those areas designated nonattainment for lead must also meet the applicable regulatory requirements set forth in 40 CFR part 51 except to the extent those requirements are inconsistent with the amended Act. The 1990 CAAA include a General Savings Clause which provides that regulations (or guidance, etc.) in effect before the enactment of the Amendments shall remain in effect after enactment (see section 193). However, the Savings Clause also provides that such regulations (or guidance, etc.) shall remain in effect "except to the extent otherwise provided under this Act, inconsistent with any provisions of this Act, or revised by the Administrator." *Id.*

and States were required to submit SIP's in accordance with section 110. The amended law, as discussed, now authorizes EPA to designate areas for lead. There are transitional issues raised by the changes in the new law including, for example, the status of the obligation to submit adequate section 110 SIP's under the pre-amended law and the status of any approved section 110 SIP's.

(b) *Unapproved or inadequate section 110 SIP's.* Before enactment of the 1990 CAAA, a State may have failed to submit a section 110 SIP to EPA, it may have submitted a section 110 SIP which was not approved by EPA, or it may have submitted and had approved a section 110 SIP which EPA subsequently found substantially inadequate. The last situation is true of at least three States. Specifically, prior to the enactment of the CAAA, EPA issued SIP calls for three States having substantially inadequate section 110 SIP's. Except for those areas designated nonattainment for lead, section 110(n)(2) requires these States to continue their section 110 planning in accordance with the SIP calls (or, as the case may be, in response to EPA's 1978 promulgation of the quarterly 1.5 $\mu g/m^3$ lead standard) and to attain the NAAQS by the applicable date specified in section 110(m)(2). Any area in these States that is designated nonattainment under the new law for the existing lead NAAQS must instead submit a part D SIP that comports with the applicable requirements in subpart 1 and subpart 5, including the SIP submittal material deadlines and attainment dates in sections 191 and 192 of subpart 5.

The EPA intends to ensure that a State whose SIP needed correction prior to enactment of the 1990 CAAA and that expects to have an area designated as nonattainment under the new law, continues to progress with its plan development and implementation for that area as provided in section 110(n)(2). Once areas are designated nonattainment for the existing lead NAAQS, the State must complete a SIP providing for attainment by the date that is as expeditious as "practicable" for any such newly-designated nonattainment area. In reviewing any future SIP's under sections 191 and 192, EPA will consider what progress could reasonably have been accomplished both prior to enactment of the new law and after enactment but before the area was designated nonattainment.

(c) *Approved section 110 SIP's.* In the situation where a State submitted and EPA approved or promulgated a section 110 lead SIP before the 1990 CAAA enactment, then all provisions of such SIP shall remain in effect unless and until EPA approves a revision under the new law (see section 110(n)(1)).

F. Nitrogen Dioxide

This section applies primarily to the South Coast Air Basin of California, which is the only designated NO_2 nonattainment area in the Nation. The basin was designated nonattainment by operation of law (section 107(d)(1)(C). The requirements described in this section would also generally apply to any subsequently designated NO_2 nonattainment areas. Nothing in this guidance prevents a SIP for a nonattainment area from containing measures more stringent than the guidance recommends.

In general, the Act, as amended in 1990, does not require significant revisions in the NO_2 NAAQS program. The General Savings Clause (section 193) provides for general program continuity by explicitly preserving existing rules, policies, and guidance that are not affected by Act changes.

1. Designations

The 1977 Act gave the primary authority for initiating designations to State Governors. Although State Governors continue to have authority to initiate the designation process (section 107(d)(3)(D)), the 1990 CAAA also give the Administrator the authority to initiate and to promulgate designations (section 107(d) (1) and (3)).

In general, areas may be designated as nonattainment, attainment, or unclassifiable for the NAAQS (section 107(d)(1)(A) (i), (ii), and (iii)). The 1990 CAAA provide for designations of areas based upon the attainment status for the current NAAQS (section 107(d)(1)(C)); they also provide authority and schedules for designations of areas following promulgation of a new or revised NAAQS (section 107(d)(1) (A) and (B)).

The revised law sets forth specific requirements that govern the redesignation of an area from nonattainment to attainment (section 107(d)(3)(E)). The particular criteria for redesignating nonattainment areas to attainment (section 107(d)(3)(E)) include the following determinations: The area has attained the NAAQS, the area has a fully approved (section 110(k)) implementation plan, the improvement in air quality is due to permanent and enforceable emissions reductions, the area has a maintenance plan meeting the requirements of section 175A, and the area meets all applicable requirements under section 110 and part D. See "Redesignations and Maintenance" under III.H.6 of this document.

2. Plan Deadlines

Submission deadlines for States to submit implementation plans (part D Plans) for NO_2 are given in section 191. Plan submission deadlines are explicitly given for nonattainment areas which violate the primary NO_2 NAAQS (section 191). The NO_2 primary and secondary NAAQS are identical. Thus, the South Coast Air Basin must submit an implementation plan that meets the requirements of subpart 1 of part D, and the plan must be submitted within 18 months after enactment of the 1990 CAAA (i.e., by May 15, 1992).

States with areas that are designated or redesignated, after enactment, as nonattainment areas for the NO_2 NAAQS must submit implementation plans (section 191[a]). These implementation plans must meet the requirements of part D and the plans must be submitted within 18 months of the designation or redesignation.

3. Attainment Dates

In the 1990 CAAA, Congress set specific attainment dates for nonattainment areas that were found to violate the NO_2 NAAQS. The 1990 CAAA require attainment of the NAAQS "as expeditiously as practicable" (section 172(a)(2) (A) and (B)). Although the 1990 CAAA give EPA authority to establish flexible attainment dates (section 172(a)(2) (A)–(C)), this flexibility does not apply to areas that have specific attainment dates (section 172(a)(2)(D)). Specifically, the flexibility does not apply to attainment of the NO_2 NAAQS because the attainment date is specified in section 192.

Areas that were designated nonattainment at the time of enactment (i.e., areas that are nonattainment by operation of law) must attain the primary standard as expeditiously as practicable, but not later than 5 years after enactment of the 1990 CAAA (i.e., by November 15, 1995) (section 192(b)). This requirement applies to the South Coast Air Basin.

Areas that are redesignated as nonattainment, subsequent to the November 15, 1990 date of enactment, must attain the primary standard as expeditiously as practicable, but not later than 5 years after the nonattainment designation (section 192(a)).

4. Nonattainment Plan Provisions

The 1970 Act required States to submit implementation plans that would

indicate how the State would attain and maintain the NAAQS. The requirements for these general SIP's were listed in part A, section 110. In the 1977 CAAA, requirements for implementation plans in nonattainment areas were given in part D (sections 171–178). These requirements addressed a number of issues including, but not limited to, attainment dates, permit requirements, and planning procedures.

The 1990 CAAA have not made significant changes in the plan requirements for NO_2 nonattainment areas (section 172(c)). For this reason, States may generally continue to rely on past guidance for NO_2 programs in meeting those requirements. This position is further supported by the General Savings Clause contained in section 193.

G. New Source Review (NSR) Nonattainment Permit Requirements

This section of the General Preamble describes the new or revised NSR nonattainment permit program requirements under part D of the amended Act and generally explains EPA's interpretation of these requirements. For these new or revised provisions, the provisions discussed below are the minimum statutory requirements States must use to revise their existing NSR nonattainment permit plan provisions (or to adopt such provisions if none exist) which must be submitted to EPA for approval by the deadlines set forth in the CAAA of 1990. In keeping with past practice, EPA intends to issue regulations setting forth in more detail the requirements for an approvable NSR program.

1. Construction Bans

Under the 1977 Amendments to the Act, section 110(a)(2)(I) of the statute required EPA to place certain nonattainment areas under a federally-imposed construction moratorium (ban) that prohibited the construction of all new or modified major stationary sources in nonattainment areas where the State failed to have an implementation plan meeting all of the requirements of part D of the Act. The amended Act repeals the provisions previously found in section 110(a)(2)(I). The amended Act also contains a Savings Clause in section 110(n)(3) that preserves certain existing section 110(a)(2)(I) construction bans in place before November 15, 1990, if the ban was imposed by virtue of a finding that the plan for the area did not contain an adequate NSR permitting program as required by section 172(b)(6) of the 1977 Act, or the plan failed to provide for timely attainment of the SO_2 NAAQS by December 31, 1982. All other construction bans imposed pursuant to section 110(a)(2)(I) are lifted as a result of the new statutory provision. In accordance with new section 110(n)(3), the construction bans that are retained remain in effect until the EPA determines that the SIP meets either the new part D permit requirements or the new requirements for attainment of the NAAQS for SO_2 under subpart 5 of part D, as applicable.

Section 173 and the various subparts of title I of the amended Act contain the requirements for issuance of a NSR contruction permit to a new or modified major source in a nonattainment area or ozone transport region. To issue such permits, the permit authority must first find per section 173(a)(4) that "the Administrator has not determined that the applicable implementation plan is not being adequately implemented for the nonattainment area" in accordance with the requirements of part D. If the Administrator determines that the SIP for the part D requirements is not being adequately implemented for the nonattainment area where the new source or modification wants to locate, permits that would otherwise meet the requirements of section 173 cannot be issued.

While EPA policy generally is to impose a FIP where States fail to adopt Clean Air Act NSR provisions, section 113(a)(5) of the amended Act provides that EPA may prohibit the construction or modification of any major stationary source in any area, including an attainment area, where there is a violation of the statute's NSR requirements. Specifically, EPA may apply section 113(a)(5) whenever the Administrator finds, on the basis of available information, that a State is not acting in compliance with any requirement or prohibition of the Act relating to construction of new sources or the modification of existing sources. Upon such a finding, the Administrator may issue an order prohibiting the construction or modification of any major stationary source in any area to which such requirement applies, issue an administrative penalty order in accordance with the requirements of section 113(d), or bring a civil action under section 113(b). Nothing in section 113(a)(5) precludes the EPA from taking other enforcement action or commencing a criminal action under section 113(c) at any time for any such violation. Section 113(a)(5) is discussed in greater detail in section IV.B.2.

2. Emissions Offsets

The 1990 CAAA clarify and expand the basic requirements for emissions offsets already contained in section 173 of part D. Moreover, in limiting the States' opportunities to set up a growth allowance (described in section III.G.3), the 1990 CAAA establish emissions offsets as the primary regulatory mechanism for accommodating major new source growth without jeopardizing the Act's mandate for reasonable progress toward NAAQS attainment. In light of such statutory changes, each State should review the emissions offset requirements in its current NSR rules and determine what revisions are necessary to conform those rules with the criteria described below.

(a) *RFP.* The basic requirement in section 173(a)(1) remains the same in that to issue a permit the State must demonstrate that the new source growth does not interfere with the approved demonstration of reasonable progress for the area. Such growth results from new or increased emissions potential from major stationary sources, as well as from emissions from minor source growth unaccounted for by the control strategy in the EPA-approved SIP.

The EPA interprets section 173(a)(1)(A) to ratify current EPA regulations requiring that the emissions baseline for offset purposes be calculated in a manner consistent with the emissions baseline used to demonstrate RFP. Regarding the amount of offsets that is necessary to show noninterference with RFP, EPA will presume that so long as a new source obtains offsets in an amount equal to or greater than the amount specified in the applicable offset ratio (or, where the statute does not specify an offset ratio, in an amount greater than 1:1), the new source will represent RFP. In general, this presumption may be overcome only if the applicable SIP expressly relies on new sources to generate a greater amount of reductions than set forth in the statutory offset ratios. The offsets still must satisfy the section 173(c) requirements as discussed below.

The EPA regulations at 40 CFR 51.165(a)(3)(i) presently require that offset be based on allowable or actual emissions, depending on which currency is used for RFP and attainment demonstration purposes. Historically, RFP often has been tracked primarily by a yearly assessment of the net actual emissions reductions that have occurred, because actual emissions best correlate with ambient air quality concentrations. In such cases, EPA regulations disallow the use of "paper" offsets based on SIP allowable emissions in excess of actual emissions, and the statutory changes do not call for any change in this approach.

(b) *Geographic location of offsets.* New section 173(c)(1) stipulates that emissions offsets generally must be obtained by the same source or other existing sources in the same nonattainment area. However, the statutory provision does allow offsets to be obtained in another nonattainment area under two specific conditions. First, the other nonattainment area must have an equal or higher nonattainment classification than the nonattainment area in which the source would construct. In applying this provision, the other nonattainment area must have an equal or higher nonattainment classification for the same pollutant. For example, a proposed major new source of VOC seeking to locate in a nonattainment area classified as serious for ozone could possibly obtain emission offsets in another ozone nonattainment area if such area were designated serious, severe or extreme for ozone.

The second condition is that the emissions from such other nonattainment area must contribute to a violation of the NAAQS in the nonattainment area in which the source would construct. The showing that such contribution from sources in another nonattainment area exists should be acknowledged and verified by the permitting authority. Generally, dispersion modeling is used to identify the existence of such impacts.

(c) *Timing of offsets.* New section 173(c)(1) also adds the condition that any emissions offsets obtained in conjunction with the issuance of a permit to a new or modified source must be, "by the time a new or modified source commences operation, in effect and enforceable * * * *." This new statutory condition for offsets augments an existing requirement under section 173 that provides that offsets must be "legally binding" before a permit may be issued. The 1990 CAAA clarified the existing requirement by requiring that the offsets be federally enforceable before permit issuance (see revised section 173(a)). Accordingly, while it is possible for a State to issue a permit to construct once sufficient emissions offsets have been identified and made federally enforceable (generally through a permit condition made to the permit of the existing source), the State must also ensure that the required emissions reductions actually occur no later than the date on which the new source or modified source would commence operation.

(d) *Actual emissions reductions.* New section 173(c)(1) includes the provision that the:

> * * *Total tonnage of increased emissions from the new or modified source shall be offset by an equal or greater amount, as applicable, in the actual emissions of such air pollutant from the same or other sources in the area.

The Act was previously silent on this issue; however, EPA's current policy concerning the baseline for emissions offsets, as contained in the part 51 NSR nonattainment regulations, provides that the offset baseline is the emissions limit under the applicable SIP in effect at the time the permit application is filed, unless the State's demonstration of RFP and NAAQS attainment is based on actual emissions, or the applicable SIP does not contain an emissions limitation for that particular source or source category (see existing § 51.165(a)(3)(i)). The new statutory requirement provides that emissions increases from the new or modified source must be offset by real reductions in actual emissions. As noted above, RFP and attainment demonstrations generally are based on actual emissions. However, to the extent that these plans are based on allowable emissions, offset credit for reductions in allowable emissions (as necessary to conform with the requirements of section 173(a)(1)) is appropriate, but will be deemed inadequate if there is not a real reduction in actual emissions that equals or exceeds, as applicable, the increase in emissions resulting from the operation of the major new or modified source.

(e) *Creditable reductions.* The final condition, added under new section 173(c)(2), prevents emissions reductions otherwise required by the Act from being credited for purposes of satisfying the part D offset requirement. For example, reductions required to meet RACT and acid rain reductions pursuant to statutory requirements are not creditable for emissions offsets. However, the statutory language does allow reductions that are achieved indirectly pursuant to a requirement of the CAAA (incidental emission reductions) to be credited if they meet the other criteria for offsets contained in section 173(c)(1) as described above. Section 112 of the CAAA contains source requirements for hazardous air pollutants. The listed hazardous air pollutants in section 112(b)(1) are not exempt from regulation under the nonattainment provisions of part D. New and existing sources must meet, where applicable, the MACT emissions limitations as promulgated under section 112(d). As part of the schedule to comply with an applicable MACT standard, an existing source may elect to comply with the early reductions requirements of section 112(i)(5). By electing to achieve early reductions, an existing source may, under certain conditions outlined below, meet an alternative emission limit in lieu of meeting an applicable MACT standard for a period of 6 years from the compliance date of an otherwise applicable MACT standard. Except as follows, to obtain the MACT compliance extension, the reduction must be achieved before the otherwise applicable standard is first proposed. A source may also obtain an extension if it achieves the early reductions after the proposal of an applicable MACT limitation but before January 1, 1994, and it makes an enforceable commitment to achieve such reductions before the proposal of the MACT standard.

Emissions reductions of the hazardous air pollutants listed in section 112(b)(1) to meet a standard under section 112(d), including emissions reductions to meet the early reductions requirements of section 112(i)(5), are not creditable emissions reductions. These reductions are required by the Act and therefore are not creditable for offsetting emission increases under part D (section 173(c)(2)).

However, any emissions reductions in excess of the required MACT standards or, in the case of early reductions under section 112(i)(5), any emissions reductions in excess of 90 percent (or in excess of 95 percent for particulates) should be considered surplus and therefore should be creditable for offsetting purposes if all other applicable requirements are met. Also, if emissions of a pollutant other than one of the specific pollutants required to be controlled are reduced as a result of complying with a MACT standard (e.g., reductions in nontoxic VOC's that are incidental to reductions of a toxic VOC that is subject to the MACT standard), or if reductions are achieved pursuant to a State requirement that goes beyond the requirements of the Act, such emissions reductions are considered incidental and, therefore, should be considered as creditable reductions if all other conditions for a creditable offset are met.

For purposes of equity, EPA encourages States to allow sources to use pre-enactment banked emissions reductions credits for offsetting purposes. States may do so as long as the restored credits meet all other offset creditability criteria and such credits are considered by States as part of the attainment emissions inventory when developing their post-enactment attainment demonstration. For VOC offsets, it is important to note that such reductions must be used in accordance

with the offset ratios established by the 1990 CAAA for the different ozone nonattainment area classifications. Existing EPA regulations (40 CFR 51.165(a)(3)(ii)(C)(1)) prohibits certain pre-enactment banked emissions reduction credits, i.e., reductions achieved by shutting down existing sources or curtailing production or operating hours, from being used in the absence of an EPA-approved attainment plan.

3. Creditable Emissions Reductions for Netting

Except for the provisions of subpart 2 of title I, the 1990 CAAA generally do not affect EPA's current procedures for netting emissions decreases and increases (see section III.A.3–5). Netting emissions increases and decreases should be determined consistent with EPA's current NSR rules and EPA's "Emissions Trading Policy Statement (ETPS)" (51 FR 43823, December 4, 1986). Use of pre-enactment reductions for netting with post-enactment emissions increases continues to be available to the extent allowed under State rules. However, because these reductions represent emissions that are not included in the 1990 base year inventory, States should consider the post-enactment increases (less post-enactment decreases) as growth even though, for applicability purposes, the source's net emissions change is de minimis.

Early reductions of hazardous air pollutant (HAP) emissions under section 112(i)(5) may also be creditable emissions reductions for netting. The EPA considers early reductions under section 112(i)(5) to be "surplus" under the ETPS and creditable for netting. As stated above, early reductions cannot be used as creditable reductions for offset purposes due to the statutory limitations of section 173(c)(2).

4. Growth Allowances

Before the enactment of the 1990 CAAA, the Act provided in general that States could establish a pollutant-specific allowance for additional growth in any designated nonattainment area by controlling existing source emissions beyond the amount of reduction required to demonstrate RFP. Based on the amount of excess control of existing emissions, section 172(b)(5) of the 1977 Act provided that States could "expressly identify and quantify the emissions, if any, of any such pollutant which will be allowed to result from the construction and operation of major new or modified stationary sources" in a particular nonattainment area. Before the 1990 CAAA, section 173(1)(A) implied that the emissions reductions used to "allow" the new emissions from the proposed source could be furnished by controlling existing major sources to a greater degree than that required by RACT or by controlling minor sources.

Commensurate with the above provision, section 173(1)(B) of the 1977 Act required that, before a part D permit to construct could be issued to any major new or modified stationary source, the permitting agency had to have determined that "emissions of such pollutant from the proposed source would not cause or contribute to emissions levels which exceed the allowance permitted * * *." Alternatively, when a major new or modified stationary source applied for a part D permit (in the absence of an approved growth allowance), corresponding emissions reductions (offsets) were to be obtained from existing sources as a prerequisite for approving the new construction. These provisions formed the basis for States to develop "growth allowances" in their SIP's.

The revised Act restricts where new allowances may be established and voids certain existing growth allowances. Revised sections 172(c)(4) and 173(a)(1)(B) limit new growth allowances to only those portions of a nonattainment area which have been formally targeted for economic growth by the Administrator, in consultation with the Secretary of Housing and Urban Development. New section 173(b) of the Act invalidates by operation of law any existing growth allowance in any nonattainment area that either received a notice that the SIP was substantially inadequate under section 110(a)(2)(H)(ii) of the 1977 Act, or receives a notice of inadequacy under new section 110(k)(1) of the amended Act. Again, section 173(a)(1)(B) lifts this restriction from targeted economic growth areas. Where a growth allowance is no longer valid or cannot be established, a proposed major new or modified stationary source in a nonattainment area is required to obtain emissions offsets on a case-by-case basis in order to obtain construction approval.

5. Analysis of Alternatives

Before the enactment of the 1990 CAAA, section 172 of part D contained a provision requiring that, in the case of implementation plans that could not demonstrate attainment of the NAAQS for ozone or carbon monoxide by December 31, 1982, such plans must include

> * * * A program which requires, prior to the issuance of any permit * * * an analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source which demonstrates that the benefits of the proposed source significantly outweight the environmental and social costs imposed as a result of its location, construction, or modification.

The 1990 CAAA removed this provision from section 172 and added it as new section 173(a)(5). Consequently, such analysis and demonstration are now prerequisites to the issuance of any part D permit.

6. Control Technology Information

Per section 173(d), the States must provide that the control technology information from permits issued under section 173 be promptly submitted to EPA's RACT/BACT/LAER clearinghouse, to other States, and to the general public.

7. Innovative Controls for Rocket Engines and Motors

Under section 173(e) States are authorized to allow offsetting, by alternative or innovative means, of emission increases from rocket engine and motor firing, and cleaning related to such firing. This authorization applies to any existing or modified major source that tests rocket engines or motors under the conditions found at section 173(e) (1) through (4). The conditions require that a proposed modification be solely for the purpose of expanding the testing of rocket engines or motors at a facility already permitted for such purposes, and that the testing is required for a program essential to the national security as certified in writing by the appropriate departments and agencies of the Federal government. Also, the source must have used all reasonable means to obtain offsets, all available offsets must already have been used, and sufficient offsets must not be available to the source. Once these criteria are met, the source will comply with an alternative measure, imposed by the permitting authority, designed to offset any emissions increases not directly offset by the source.

In lieu of requiring alternative offset measures, the permitting authority may impose an emissions fee to be paid to, and used by, the State to maximize emissions reductions in the area of the test facility. Section 173(e)(4) caps such fees at 1.5 times the cost of stationary control costs adopted in the area during the previous 3 years.

8. Exemptions for Stripper Wells

Section 819 of the CAAA provides a limited exclusion for activities related to stripper wells, where such activities occur in certain designated nonattainment areas. The statutory provision as written applies to the production of oil or natural gas from a stripper well, and the equipment used in the exploration, production, development, storage, and processing of such stripper well oil and natural gas. Stripper wells are low-production wells. Oil stripper wells produce less than 10 barrels of oil per day and natural gas stripper wells (as defined in the National Gas Policy Act; 15 U.S.C. section 3318(b)) cannot exceed an average of 60,000 cubic feet per production day during a 90-day production period.

While still subject to the general requirements under sections 172 and 173 of the Act for NSR nonattainment area permits, including requirements applicable under those sections pursuant to subpart 1 of part D of the amended Act, these activities are not required to satisfy the additional nonattainment area requirements enacted under new subparts 2, 3, 4 and 5 of part D of the amended Act. Section 819 of the 1990 CAAA limits this exclusion to PM-10, ozone, or CO nonattainment areas classified as marginal, moderate, or serious (and having a population of less than 350,000). (subpart 5 of part D provides no additional NSR requirements for sulfur oxides, nitrogen dioxide, or lead nonattainment areas.) No exclusion from the additional requirements of subparts 2 through 5 is provided for serious PM-10, ozone or CO nonattainment areas having a population of 350,000 or more, or in severe and extreme ozone nonattainment areas.

9. OCS source Applicability

Section 801 of the 1990 CAAA adds a new section 328 to the Act entitled "Air Pollution from Outer Continental Shelf Activities". This section contains provisions pertaining to the control of air pollution from OCS sources. These provisions necessitate a revision of the Federal NSR regulations under both the PSD and NSR nonattainment permit programs to facilitate implementation of OCS regulations. The OCS regulations will be proposed in a separate EPA action and codified at 40 CFR part 55. The reader is referred to the separate OCS proposal package for more specific information on the OCS rules.

10. Tribal Lands Applicability

As discussed more fully in section V.B. of this preamble, the 1990 CAAA grant EPA the authority to treat Indian tribes in certain respects as States, and specifically allows Tribes to develop tribal implementation plans for implementating the NAAQS on tribal lands. Like SIP's, these plans must include all implementation requirements set out in the Act, including complete NSR programs for constructing or modifying existing sources located on tribal lands. Further guidance on the treatment of Indian tribes will be provided as part of a separate rulemaking required by section 301(d)(2) of the Act.

11. Stationary Source Definition

The 1990 CAAA added a new definition of "stationary source" in section 302(z) of title III of the Act, and amended the existing definition already contained in section 111(a)(3). The addition of the new definition appears to strengthen congressional intent that certain internal combustion engines must be subject to control under State permit programs, while requiring the exclusion of those internal combustion engines which fall under the newly defined category of "nonroad engines." Congress authorized EPA to establish emissions standards for categories of nonroad engines that are deemed to contribute significantly to pollution problems. Such authorization preempts States from further regulating such sources of pollution under the stationary source permit process. The EPA presently believes that most internal combustion engines used in stationary applications should be subject to the State permit process for stationary sources.

12. Temporary Clean Coal Technology Demonstration Projects

Section 415(b)(2) of the amended Act provides under certain conditions an exemption from the part D requirements of title I for the installation, operation, cessation, or removal of a temporary clean coal technology demonstration project. Section 415(b)(1) specifies that clean coal technology projects are those funded under the Department of Energy-Clean Coal technology appropriations or similar projects funded by EPA and limits the applicability of section 415 to existing facilities.

Under section 415(b)(2), to qualify for this exemption, a temporary clean coal demonstration project must operate for no more than 5 years. The project must also comply with any applicable SIP for the area in which the project is located and all other requirements for the attainment and maintenance of ambient air quality standards, both during and after the project. Section 415(b)(4) requires EPA to issue rules or interpretive rulings to implement this exemption. As required, EPA has proposed such changes to the rules for steam electric utility units. These proposed changes were published in the Federal Register on June 14, 1991 (56 FR 27630). Readers are referred to this notice for more details on the applicability of this exemption. Under section 415(b)(4), these rules are limited to those areas where EPA is the permitting authority. Where the State is the part D permitting authority, the State may, but is not required to, adopt and submit to EPA for approval rule changes incorporating the section 415(b)(2) exemption in its SIP.

13. Failure to Submit NSR Rules By Statutory Deadlines

The 1990 CAAA require States to adopt SIP revisions subject to EPA approval that incorporate the new preconstruction permitting requirements for new or modified sources that were discussed in the preceding sections. For instance, new permit rules for PM-10 nonattainment areas must be submitted to EPA by June 30, 1992; new rules for ozone nonattainment areas must be submitted by November 15, 1992; new rules for most CO nonattainment areas are due 3 years from the date of the nonattainment designation. The EPA has previously announced its interpretation that the new NSR requirements did not go into effect with passage of the 1990 CAAA but rather become effective in accordance with the schedule for State adoption of SIP revisions (see J. Seitz, "New Source Review (NSR) Program Transitional Guidance," p. 6 (March 11, 1991) (appendix D)).

If these deadlines pass without States submitting NSR revisions, EPA may impose sanctions on delinquent States. Specifically, the Act (in two separate provisions) grants EPA the authority to impose sanctions based on several different types of State failures including a State's failure to submit a SIP or SIP element, or a State's submitting an inadequate SIP or SIP element (see section IV.B.2). The sanctions include reducing a State's highway funds (section 179(b)(1)) or increasing emissions offsets (to at least 2 to 1) for new and modified sources (section 179(b)(2)). In addition to these general sanctions, section 113(a)(5) provides that when the Administrator finds that a State is not acting in compliance with

any requirement or prohibition relating to NSR, the Administrator may issue an order prohibiting the construction or modification of any major stationary source in any area where such requirements apply. In States that delay in revising their SIP's to include the new preconstruction permitting requirements by the statutory deadline, EPA may exercise this authority by proceeding under section 113(a)(5) whenever a particular new source attempts to construct without meeting the NSR requirements added by the 1990 CAAA, or by issuing a general construction ban. As an alternative, the Administrator could issue a contingent order prohibiting construction of any major new or modified source that failed to obtain a permit that met the amended statutory NSR requirements. The EPA will provide additional information on this issue in its NSR regulatory package.

In addition to imposing statutorily required sanctions, EPA is also required by the statute to promulgate a FIP when it finds that a State has failed to make a required SIP submittal or has made an incomplete submission (see section IV.C). Pursuant to this authority, EPA is developing revised NSR regulations that would include, at 40 CFR part 52, a Federal NSR nonattainment permitting program that EPA (or the State pursuant to a delegation agreement) could implement as a FIP in those States that fail to submit NSR regulations by the statutory deadlines. Because of the importance of the increased offset ratios, reduced source thresholds, and other NSR changes to States' overall attainment effort, EPA presently intends to impose this NSR FIP on any State that fails to adopt its own NSR regulations within the deadlines established by the Act. In addition, or until such time as the FIP is in place, EPA may impose any of the sanctions identified above. Of course, once it receives and approves the State's NSR regulations, EPA would, under ordinary circumstances, withdraw the FIP and any sanctions that may have been imposed.

H. General

1. Part D, Subpart 1/Section 110 (to the Extent Not Covered Under Pollutant-Specific)

Subsections (A) through (M) of section 110(a)(2) set forth the elements that a SIP must contain in order to be fully approved. Although Congress substantially amended section 110(a)(2) upon enactment of the amended Act, many of the basic requirements remain the same.

Amended subsection (A) includes the pre-amended subsection (B) requirement that all measures and other elements in the SIP be enforceable. The amended provision specifically authorizes SIP's to contain certain nontraditional techniques for reducing pollution—economic incentives, marketable permits, and auctions of emissions rights. The EPA reads this language to require even these other means of achieving reductions to be enforceable. Section 172(c)(6), one of the general SIP requirements for nonattainment areas, also includes this requirement in essentially the same language.

Subsection (B) carries forth the pre-amended subsection (C) requirement to monitor and compile data on ambient air quality. The EPA historically has promulgated regulations in part 58 of the CFR, indicating the necessary data States need to collect and submit as part of their SIP. The existing regulations remain in effect, pursuant to section 193, to the extent they are not inconsistent with the new law, until EPA elects to amend them.

The enforcement provisions of pre-amended subsection (D) are now under subsection (C). While this provision retains the preexisting requirement that the SIP include a pre-construction review for all new and modified stationary sources, it deletes the previous provision's specific reference to pre-construction review of sources subject to NSPS.

Amended subsection (D) also contains provisions that essentially remain unchanged. It incorporates language from pre-amended subsection (E) requiring States to include SIP provisions prohibiting sources from emitting pollutants that would contribute significantly to nonattainment, interfere with maintenance of the standard, or interfere with PSD or visibility.[34]

Subsection (E) of the amended Act incorporates one provision from pre-amended subsection (F)—clause (E)(ii) reinforces the section 128 requirement that the SIP contain certain requirements as to State boards. In addition, clause (E)(i) of the amended Act includes the pre-amendment subsection (F) requirement that States ensure that the State and/or local governments have adequate resources to implement the plan. This includes a new requirement that the State ensure that nothing in the SIP is otherwise prohibited by any other State or Federal law. Finally, clause (E)(iii) adds a new requirement—that the State retain responsibility for ensuring adequate implementation in cases in which it relies on local implementation of plan provisions.

Subsection (F) carries forth the requirements of pre-amended subsection (F) that concern emission monitoring. The EPA promulgated monitoring regulations at § 51.210 of the CFR and in appendix P to part 51. Under section 193, the existing regulations remain effective to the extent they are not inconsistent with the new law, until EPA elects to amend them.

Amended subsection (G) also carries forth a provision of pre-amended subsection (F). States must provide authority to bring emergency actions (comparable to that granted to EPA in section 303) in cases where a source or a group of sources present an imminent and substantial endangerment to the public health. The EPA has also adopted regulations regarding such authority in 40 CFR 51.150, and these regulations will remain effective under section 193, to the extent they are not inconsistent with the new law, until EPA amends them.

Subsection (H) was not revised by the amendments. It still requires States to provide for the revision of their SIP's (commonly referred to as "SIP calls") in two circumstances: if the NAAQS were revised, or if EPA made a finding that the plan was substantially inadequate to attain the standard. New section 110(K)(5) gives EPA the authority to issue a SIP call.

Amended subsection (I) adds a new requirement to section 110(a)(2). It now states explicitly that any plan or plan revision must meet the applicable requirements of part D (provisions relating to nonattainment areas). Although this is a new section 110(a)(2) provision, it does not add a new requirement to the Act as a whole. The SIP's for nonattainment areas have always been required to meet the part D requirements.

Subsection (J) has also been retained in its preexisting form. It continues the requirement that SIP's meet the applicable PSD and visibility requirements and the associated consultation and public notification provisions of sections 121 and 137, respectively.

[34] The pre-amended section 110(a)(2)(E) required SIP's to contain a provision prohibiting stationary sources from emitting an air pollutant in amounts which will "prevent attainment" in another State. The amended version of this language requires a SIP provision that prohibits emissions that will "contribute significantly to nonattainment" in another State. However, EPA interpreted the pre-amended language in the manner that Congress expressed in the amended Act. See Air Pollution Control Dist. v. U.S. EPA., 739 F.2d 1071, 1090–93 (6th Cir. 1984). In the Senate Report, Congress noted that the pre-amended language presented an impossible standard and noted that it was adopting "significantly contribute" to clarify when a violation of that requirement would occur. S. Rep. No. 228, 101st Cong., 1st sess. 21 (1989).

Amended subsection (K) reinforces EPA's authority to require States to do air quality modeling. Although this is a section 110(a)(2) provision, EPA has always had the authority to require appropriate modeling. This requirement will be met if the State submits its actual modeling in its SIP submittal, and EPA determines that the submitted SIP measures are approvable. The EPA currently does not have regulations concerning modeling for the SIP demonstration purposes,[35] but has issued guidance (e.g., "EPA's Guideline on Air Quality Modeling" (1987)).

The pre-amended provisions concerning permitting fees has been carried over in subsection (L). Although the language of this provision has not changed, in light of the new permit provisions of the amended Act (title V), these requirements could have a different impact from under the pre-amended Act.

Amended subsection (M) is a new provision requiring States to provide for consultation and participation by local political subdivisions affected by the SIP. This section builds on several other section 110(a)(2) requirements that require consultation and participation in regard to specific SIP elements.

2. Conformity

(a) *General requirements.* Section 176(c) provides the framework for ensuring that Federal actions conform to air quality plans under section 110. Under section 176(c), before any agency, department, or instrumentality of the Federal Government engages in, supports in any way, provides financial assistance for, licenses, permits, or approves any activity, that agency has an affirmative responsibility to ensure that such action conforms to the SIP or FIP.

"Conformity to an implementation plan" is defined in section 176(c)(1) (A and B) of the Act as meaning "conformity to an implementation plan's purpose of eliminating or reducing the serverity and number of violations of the national ambient air quality standards and achieving expeditous attainment of such standards; and that such activities will not cause or contribute to any new violation of any standard in any area; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area."

The intent of these provisions is explained in the Committee Report:

> Through the evaluation of the air quality impacts of proposed projects before they are undertaken, the conformity provision is intended to foster long range planning for the attainment and maintenance of air quality standards, and to assure that Federal agencies do not take or support actions which are in any way inconsistent with the effort to achieve NAAQS or which fail to take advantage of opportunities to help in the effort to achieve the NAAQS. (Committee expects that the new conformity provisions will be especially helpful in assuring that air quality considerations play a greater role in Federally supported transportation planning efforts, which can have a major impact on air quality and, in some severely polluted areas, are essential as part of the program for achieving the NAAQS ("Committee Report," page 222.)

Section 176(c)(4) required EPA to promulgate general criteria and procedures for determining conformity by November 1991. In the case of transportation plans, programs, and projects, the EPA Administrator, with the concurrence of the Secretary of Transportation, was required to promulgate criteria and procedures for "demonstrating and assuring" conformity by November 1991. Section 176(c)(4)(C) requires EPA to include in such procedures a requirement that each State submit to EPA and the DOT by November 1992 a revision to the implementation plan that includes criteria and procedures for assessing the conformity of any plan, program, or project subject to the conformity requirements. Until this revision is approved by EPA, existing conformity provisions in the SIP remain in effect. The criteria for determining transportation conformity ultimately require the existence of SIP's which contain estimates of emissions from motor vehicles. Until such times as EPA approves these SIP's however, there exists an interim period with criteria for determining transportation conformity which are different from those that will apply after the SIP is approved. These interim criteria are contained in section 176(c)(3). The EPA and DOT jointly issued guidance on transportation conformity for this interim period based on these criteria in June 1991.

The EPA's transportation conformity regulations are still under development, in coordination with DOT. On October 24, 1991, EPA and DOT jointly issued further guidance indicating that the interim transportation guidance issued on June 7, 1991 would continue in effect until the agencies promulgated final conformity regulations. It is unlikely that final regulations will be available significantly before November 1992 to allow States to submit SIP revisions addressing conformity by November 15, 1992, the date the statute requires EPA to call for such submittals in its regulations. The EPA consequently anticipates that in its conformity regulations, it will establish a later date for such SIP submittals in recognition of the impossibility of imposing the 1992 date. The EPA intends to provide States with a reasonable period to develop conformity regulations, such as the year that Congress had in mind in section 176(c)(4)(C). The EPA notes for clarification that States are under no duty to submit conformity regulations until EPA promulgates its regulations and establishes a date for such submittals. Detailed guidance on the overall conformity program will be provided in later rulemaking actions. The guidance below concerns section 176(c)(1)(B)(iii) as applied to nonattainment areas.

(b) *Establishment of emission budgets for transportation-related actions in ozone or CO nonattainment areas.* In general, Federal actions may not delay timely attainment of any standard or any required interim emission reductions or other milestones in any area. More specifically, after the interim period, conformity cannot be determined for a transportation plan or program unless a determination has been made by the metropolitan planning organization that emissions expected from implementation of such plans and programs are consistent with estimates of emissions contained in the applicable SIP. The EPA interprets these provisions to mean that the combination of highway capacity expansion, highway extensions, support for transit, and TCM's in the transportation plan and program must result in vehicle emissions that are not in excess of those contained in the SIP's demonstration of RFP and attainment, despite any difference that may exist between the area's current and forecasted population, employment, and travel demand and those that were assumed at the time of SIP preparation and adoption. In other words, the conformity provisions envision that the SIP will create an emissions budget (for the criteria pollutant and its precursors) for highway vehicles, and that the transportation planning process will be required to produce plans and programs that will result in emissions within that budget. For regional pollutants (ozone, NO_2, CO in some areas, and PM-10 in some areas) the transportation planning process is not required to demonstrate

[35] Under the PSD provisions of section 320, EPA has historically had such modeling rules. In addition, EPA has used these rules as guidance for other purposes, using the guidance as a basis for what is adequate modeling. This new subsection (K) requirement ratifies EPA's past application of the rules, as rules for PSD purposes and as guidance for other purposes.

again that the budgeted emission level will result in attainment. (For pollutants capable of forming hot spots of nonattainment, an air quality determination is required.)

(1) *Areas required to demonstrate RFP and attainment.* For nonattainment areas that are required to demonstrate RFP and attainment by a future year, the SIP revision that contains those demonstrations will necessarily contain statements of the motor vehicle emissions for future years on which those demonstrations are based. These statements will become the emissions budgets that will be used for later conformity determinations. Budgets will thereby be defined for a number of future dates, depending on the RFP and attainment showings required for the area based on its nonattainment status. States should make sure that these budgets are stated clearly and unambiguously in the SIP. For example, assumed temperature inputs and the geographic area of the inventory must be stated so that comparisons can be made later on an accurate basis. The RFP milestones will usually be defined in terms of typical seasonal weekday emissions, like the base and periodic inventory. Attainment demonstrations may be based on individual episode days, however. If so, the SIP must contain an attainment year inventory expressed on the same basis as the other milestone inventories.

The 1990 CAAA allow a single budget for a nonattainment area for a given criteria pollutant or percussor. However, States have the option of specifying the budgets in more detail or disaggregation. For example, an ozone attainment demonstration using a grid model will contain estimates of vehicle emissions for many small grid squares. The SIP may provide that only the sum of vehicle emissions from all grids within the nonattainment area will apply for purposes of conformity determination, or it may divide the area into subareas and establish a budget for each. This approach would provide additional assurance that transportation plans and programs will result in emission patterns that will produce attainment. Such an approach will of course constrain the transportation planning process, and it may later be found useful for the State to submit a SIP revision showing that some other distribution of emissions, or even a different emission total, is also consistent with attainment. A SIP may also provide for alternative emission budgets each of which is shown to produce milestone compliance and/or attainment, for example, different combinations of VOC and NO_x emissions. Finally, a SIP that demonstrates a margin of safety with respect to milestones may identify a budget for conformity purposes which is higher than expected to result from the measures in the SIP, but is consistent with the milestone and attainment date requirements, for purposes of providing the transportation planning process with a cushion for unexpected growth or less than expected effectiveness from TCM's. This sort of cushion for unexpected growth is only a suggestion and EPA wants to affirm its confidence in the SIP planning process. This does not change the substantive requirements for SIP approval, however.

(2) *Other nonattainment areas.* Transitional, submarginal, and marginal ozone nonattainment areas, not-violating CO areas, and moderate CO areas with design values of 12.7 ppm or less are not required to include specific attainment demonstrations or to show compliance with interim milestones. Consequently, they are not required to contain statements of future emissions which could be used as emissions budget for later conformity determinations. Nevertheless, EPA believes that the intent of section 176(c) is to make conformity a meaningful process for these areas, rather than to release the transportation planning process of all rsponsibility for area-wide motor vehicle emissions. On the other hand, the need to provide emissions criteria for future conformity determinations should not defeat the evident congressional intent to temporarily excuse these areas from having to develop and implement control strategies beyond vehicle fleet turnover, Federal measures, and required measures specified for them in the Act. It also seems clear that Congress did not intend these areas to be subject to any serious constraint on VMT and industrial activity growth prior to the date on which they are vulnerable to being reclassified for failure to attain. To satisfy these intents, these States should choose from two options as described below, and clearly indicate their selection in the SIP.

First option: The State may elect to extend the interim conformity criteria of section 176(c)(3)(A) for the entire period prior to EPA approval of either a section 175(A) maintenance SIP or—following bump up—a SIP that meets RFP and attainment requirements. These interim criteria would otherwise expire when EPA approves the conformity SIP revision described in section III.H.1.a. The most important of these criteria is that the transportation plan and program must contribute to emissions reductions, i.e., that implementation of the plan and program will cause lower emissions than if new projects were not implemented. This option requires the least analysis by the State, but precludes transportation plan-caused increases in emissions that might in fact not interfere with attainment by the deadline due to the large reductions resulting from other measures. In the joint EPA/DOT interim conformity guidance, these areas were implicitly placed under this option and will remain there unless a SIP revision exercising the second option is approved.

Second option: The State may voluntarily submit, as a SIP revision, an attainment demonstration and corresponding motor vehicle emissions budget, like higher classified areas. This may show that transportation plans that cause emissions increases are in fact compatible with attainment, thereby providing the transportation planning process flexibility to adopt such plans later.

(3) *Maintenance plan.* More specific guidance on the content of maintenance plans may be provided at a date closer to when States will be preparing these plans. For now, States should be aware that transportation planning in areas redesignated to attainment and operating under a maintenance plan will also be subject to the emissions budget concept. A budget for motor vehicle emissions must be establishment in the maintenance plan and shown to be consistent with the maintenance demonstration in light of expected emissions from other sources.

(4) *Emission budgets during the replanning period immediately following failure to meet a milestone or failure to attain.* Failure to meet a milestone or to attain by the expected date may be due to inaccurate inventorying of 1990 emissions, inaccurate air quality modeling, excess growth in nonvehicle emissions, or excess growth in vehicle emissions despite the operation of the conformity process. In such cases, the adequacy of the emissions budgets for motor vehicles is called into question and new budgets must be developed as part of the replanning that is required by the 1990 CAAA. Until a new SIP is approved or a Federal plan is promulgated, the previous budgets will continue to be applied for demonstrating conformity.

(c) *Identification and scheduling of transportation control measures.* Section 176(c)(2)(B) requires that transportation improvement programs provide for timely implementation of TCM's consistent with schedules included in the applicable SIP. In

general, EPA will allow emission reduction credit only for TCM's that are fully adopted and for which a sponsoring agency has made an enforceable commitment of its own; nevertheless, the provision regarding transportation improvement programs will be an important aid to implementation. Effective implementation of this provision will require that SIP's adequately describe TCM's with respect to their design, location, scope, scale, and implementation schedule including milestones prior to full adoption.

3. Planning Requirements Including Section 174

Section 174, Planning Procedures, was broadened to ensure that State and local authorities share in the development, implementation, and enforcement of the SIP. This section requires the State to certify the planning organization and to identify the specific State, local, or regional agencies that will develop, adopt, and implement the elements of the SIP. In addition, a new subsection was added to clarify that when a nonattainment area includes more than one State, the affected States may jointly undertake planning procedures. States are required to review and update, as necessary, their SIP planning procedures by November 1992.

Two options are generally available to States through section 174: To continue using the planning organization previously certified, or to certify a new planning organization. If a new planning organization is certified, section 174 requires that organization to include elected officials or local governments in the affected area and representatives of the State air quality planning agency, the State transportation planning agency, the metropolitan planning organization designated to conduct the continuing cooperative and comprehensive transportation planning process for the area under section 134 of title 23, U.S.C., the organization responsible for the air quality maintenance planning process, and any other organization with responsibilities for developing, submitting, or implementing any aspects of the SIP.

The EPA encourages the States to certify either the previous organization or a new organization well before the November 1992 deadline. Early certification will be helpful to the various agencies that must meet deadlines by this date.

Additional guidance on the new section 174 provisions is contained in the update of the 1978 Transportation-Air Quality Planning Guidelines by EPA and DOT, due in November 1991. Previous guidance issued by EPA and DOT in 1977 specific to section 174 was superseded by this 1991 update. The EPA will soon update Subpart M, Intergovernmental Consultation, of the "Code of Federal Regulations" to reflect the new section 174 requirements.

4. Economic Incentives

Since 1980 EPA has developed several programs to allow industry and States more flexibility in meeting statutory requirements of the 1977 Act. One of these initiatives is the Emissions Trading Policy Statement (ETPS) (51 FR 43814, December 4, 1986). The ETPS allows source-specific SIP revisions for sources to trade emissions reductions credits (ERC's) with other sources to meet some emission limitations. All ERC's must be permanent, real, quantifiable, (federally) enforceable, and surplus (i.e., not otherwise needed for an attainment strategy or other already existing control requirements). The ETPS also allows States to develop and adopt generic emission trading programs into their SIP. To receive EPA approval, a generic emission trading program must contain replicable procedures to ensure that all ERC's meet the criteria above.

As discussed below, the CAAA include several new economic incentive programs as well as changing statutory language that may lead to modification to existing policies, including updating of the ETPS. The EPA has started work to inventory potential discrepancies between the ETPS and the CAAA. If warranted, EPA would issue a policy interpretation of the ETPS that EPA will use when applying the ETPS for the SIP approval process.

The 1990 CAAA encourage innovation through the use of market-based approaches, not only in the title IV acid rain program, but also in title I SIP provisions. The use of economic incentives are explicitly allowed for in the general SIP requirements (section 110(a)(2)), the general provisions for nonattainment SIP's (section 172(c)(6)), and in the system of regulations for controlling of emissions from consumer or commercial products (section 183(e)(4)).

Beyond these general allowances for economic incentives, use or considering the use of an option to implement economic incentives is mandated in certain cases. These cases include State failure to submit a compliance demonstration or to meet applicable milestones for RFP for serious, severe, and extreme ozone nonattainment areas (sections 182(g)(3) and 182(h)) and State failure to submit a milestone demonstration, to meet a required specific emissions reductions milestone, or for serious CO nonattainment areas to attain the standard (sections 187(d)(3), 187(g)).

Section 182(g)(4)(A) defines such a State economic incentive program as one that is consistent with EPA rules, the publication of which is mandated by November 15, 1992 (section 182(g)(4)(B)). According to section 182(g)(4)(A), the State program may include but is not limited to, systems of emissions fees, marketable permits, or State fees on the sale or manufacture of products, as well as incentives and requirements to reduce vehicle emissions and VMT's, including any of the TCM's in section 108(f).

One such TCM is the accelerated retirement of vehicles. It is estimated that in some areas of the country, as few as 20 percent of the vehicles produce up to 60 percent of the total vehicle emissions. Because of less stringent emission standards, deterioration, tampering, malmaintenance, old vehicles can emit at very high levels. An accelerated retirement program encourages the removal and destruction/recycling of these older vehicles by offering individuals money of their "old" cars. An incentive is created for owners to voluntarily trade in these vehicles for new, lower emitting vehicles.

The EPA believes that an accelerated retirement program can be an important part of an attainment strategy by providing greater flexibility to industry in complying with emission standards. By this notice, EPA is announcing the availability of an information document of the accelerated retirement of vehicles programs, as required under section 108(f). The document outlines the theory behind accelerated vehicle retirement, considers desirable elements of program design, and discusses the experience of a pilot program sponsored by UNOCAL Corporation in Southern California.

States may include scrappage programs in SIP submissions. Scrappage emissions reductions will get full credit toward SIP attainment demonstrations. To the extent permissible by law, credits generated through scrappage programs may be used to meet air quality limitations.

The EPA interprets 182(g)(4)(A) as allowing a broad range of market-based strategies. The State program is to be "nondiscriminatory" and consistent with inter-State commerce laws (section 182(g)(4)(A)).

The EPA's economic incentive rules are to include model plan provisions for permitted stationary sources, area sources, and mobile sources, as well as

guidelines that specify how revenues generated by the plan provisions shall be used (section 182(g)(4)(B)). These rules will address issues such as setting baselines, banking provisions, administrative requirements and consistency with the title V Permitting Program, title VII Enhanced Monitoring and Compliance Certification Program, and other provisions discussed elsewhere in this notice. The EPA currently views these rules as guidance that is intended to encourage early implementation of appropriate economic incentive programs to potentially avoid such failures in the future. The EPA hopes that the rules will stimulate innovative, market-based approaches, where appropriate, in meeting long-term milestones and goals. The EPA also will give consideration to using these rules as guidance in developing Federal rules and FIP strategies when necessitated by State failures in meeting RFP milestones. The EPA will solicit comments on its economic incentive program rules at the time of proposal of that rulemaking.

The EPA encourages the development of economic incentive programs that increase flexibility and stimulate the use of more cost-effective strategies, as well as provide incentives for continuing to develop and implement innovative emissions reductions technology and strategies beyond those specifically mandated through standards and regulations. However, EPA believes that the implementation of economic incentive programs must also meet the standards of enforceability currently found in traditional regulatory programs.

The Agency wishes to clarify its position regarding mobile/stationary source trading. The agency is very supportive of efforts to trade emission reductions among mobile and stationary sources to the extent such trades would result in a less costly mix of measures to attain the standards and would meet the relevent Clean Air Act requirements. EPA will work with states and individual sources to highlight and develop such trading opportunities and will be taking various steps to encourage such trades.

In particular, EPA will clarify which Clean Air Act requirements can be met by trading emission reductions among mobile and stationary sources and how such trading can be implemented, through guidance it will issue as part of the economic incentive rules and elsewhere as necessary. This guidance will encourage states to consider such trades as they develop their state implementation plans.

Mobile source programs which could generate tradeable credits include, but are not limited to:

- An accelerated vehicle retirement program,
- A program to convert cars or fleets to cleaner fuels, and
- A program to expand the geographic coverage of inspection and maintenance programs.

States can allow stationary sources to use these reductions on an individual basis to meet certain emission reduction requirements or to generate tradeable offsets to help meet new source review requirements where not prohibited by the statute.

5. Section 172(c)(1) Requirement for All Reasonably Available Control Measures (RACM)

Section 172(c)(1) requires the plans for all nonattainment areas to provide for the implementation of all RACM as expeditiously as practicable. 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.

The EPA has previously interpreted the RACM provisions of the pre-amended Act. The EPA is today changing its prior interpretation and adding specific interpretations with respect to PM-10. The following discussion explains the origins of EPA's past interpretation and the rationale for the current changes to that interpretation.

The EPA previously interpreted this provision under the pre-amended Act in its guidance at 44 FR 20372, 20375 (April 4, 1979). The EPA there indicated that where measures that might in fact be available for implementaton in the nonattainment area could not be implemented on a schedule that would advance the date for attainment in the area, EPA would not consider it reasonable to require implementation of such measures. The EPA continues to take this interpretation of the RACM requirement.

Also in the 1979 guidance, EPA created a presumption that all of the TCM's listed in section 108(f) were RACM for all areas, and required areas to specifically justify a determination that any measure was not reasonably available based on local circumstances. The EPA reiterated that guidance at 46 FR 7182, 7187 (January 22, 1981).

However, based on experience with implementing TCM's over the years, EPA now believes that local circumstances vary to such a degree from city-to-city that it is inappropriate to presume that all section 108(f) measures are reasonably available in all areas. It is more appropriate for States to consider TCM's on an area-specific, not national, basis and to consider groups of interacting measures, rather than individual measures.

The section 108(f) measures should be considered by States as potential air quality control options. Further, the list should not be viewed as exhaustive, but rather indicative of the types of TCM's States should consider in developing the TCM portion of their control strategy. A recent study for EPA identified more than 70 individual measures within broad TCM categories that could be considered as potential controls (SAI, IT, PES 9-90). In addition, any measure that a commenter indicates during the public comment period is reasonably available for a given area should be closely reviewed by the planning agency to determine if it is in fact reasonably available for implementation in the area in light of local circumstances.

Local circumstances relevant to the reasonableness of any potential control measure involve practical considerations that cannot be made through a national presumption. Various TCM's must be locally coordinated to minimize contradictory results and maximize mutually supportive outcomes. Feasibility of TCM implementation can thus be particularly complicated, and EPA recognizes the importance of assessing candidate TCM's in the context of each particular area's situation.

Finally, with respect to TCM's or any other control measures, EPA does not believe that Congress intended the RACM requirement to compel the adoption of measures that are absurd, unenforceable, or impracticable (see 55 FR 38328, September 18, 1990).

The EPA, therefore, concludes that it is inappropriate to create a presumption that all of the measures listed in section 108(f) are per se reasonably available for all nonattainment areas. All States must, at a minimum, address the section 108(f) measures. The EPA believes that at least some of the measures will be reasonably available for implementation in many nonattainment areas. Where a section 108(f) measure is reasonably available, section 172(c)(1) requires its implementation.

The Senate managers' explanation of the new transportation control provisions includes a statement endorsing EPA's 1979 guidance on RACM as recently construed by the Court of Appeals for the Ninth Circuit in *Delaney v. EPA*, 898 F. 2d 687 (1990). 136 Cong. Rec. S16971 (daily ed. Oct. 27, 1990). In that case, the court held that

EPA was bound to apply its then-applicable 1979 RACM guidance by its own terms, which created the presumption that all section 108(f) measures were reasonably available. However, the court did not hold that the statute required such an interpretation of the RACM requirement, nor that EPA could not in the future revise its RACM guidance. The EPA remains free to alter its past guidance consistent with a reasonable interpretation of statutory requirements in light of historical experience implementing TCM's.

The legislators who cited the *Delaney* v. *EPA* decision had lobbied in the Senate Committee bill for a requirement that all section 108(f) measures be implemented in severe ozone nonattainment areas. This position was however abandoned in the final Senate bill. Any statements in the subsequent Senate debates concerning implementation of all section 108(f) measures therefore do not necessarily reflect the views of the Senate as a whole, let alone the entire Congress.

Finally, EPA also notes that it believes the court in *Delaney* v. *EPA* mischaracterized EPA's guidance in one respect. The court stated that in light of the previous presumption that section 108(f) measures were reasonably available, "a state can reject one of these measures only by showing that the measure either would not advance attainment, would cause substantial widespread and long-term adverse impact, or would take too long to implement." *Delaney*, at *692*. In the case before the court, EPA had argued that certain measures would have substantial widespread and long-term adverse impact. However, EPA believes that its revised RACM interpretation would provide for the rejection of control measures as not reasonably available for various reasons related to local conditions even where such costs fell short of substantial widespread impact. This is especially true in the absence of a presumption that any given measure is per se reasonably available.

Section 177 permits a State to adopt and enforce new motor vehicle emission standards that are identical to those adopted by California and for which a waiver under section 209(a) has been granted. The EPA is not able at this time to specify the emissions reduction credits that may be available to a State that adopts emissions standards identical to California's so-called "Low Emission Vehicle (LEV) program." The EPA is presently developing the updated version of its mobile emissions model—MOBILE5—which will include EPA's estimates of the SIP credits available to States adopting the LEV standards. The EPA plans to complete work on the model in June 1992, at which time it will be made available to States and the public.

The EPA has recently been asked whether a State, which requires under section 177, that new vehicles sold in the State comply with the California standards, must also require that those vehicles use the fuel or fuels upon which they were certified as meeting the California standards. The EPA is undertaking a legal and policy review of this question.

PM-10 is different from O_3 and CO in that here may be many PM-10 areas where mobile sources do not significantly contribute to the nonattainment problem in the area. Section 190 of the Act, which applies specifically to PM-10, recognizes this distinction. Section 190 specifies those source categories for which EPA is required to issue guidance on RACM. Section 190 also provides that EPA shall examine other categories of sources contributing to nonattainment of the PM-10 standard and determine whether additional guidance on RACM is needed. Section 190 represents a statutory expression of those sources generally deemed to contribute to the PM-10 nonattainment problem and requires that EPA determine whether other sources contribute to the PM-10 nonattainment problem and, as necessary, issue RACM guidance for such sources. Thus, in the discussion addressing PM-10 RACM, EPA takes the position that the available control measures EPA has identified in its guidance issued under section 190 are the suggested starting point for determining RACM. Accordingly, the affected State should evaluate these measures and other measures that a commenter demonstrates may well be reasonably available in an area considering their technological and economic feasibility in the area to which the SIP applies.

The EPA received comments requesting that additional control measures, including the TCM's identified in section 108(f) of the amended Act, be added to EPA's guidance on control measures issued under section 190. At this time, EPA has insufficient information to conclude that the sources addressed by these measures contribute to the PM-10 problem in a sufficient number of areas in the nation such that section 190 guidance is necessary. Thus, EPA does not presently believe that each of these measures should be added to the list of measures which is the suggested starting point for the RACM analysis for each of the PM-10 nonattainment areas in the nation. This is not to suggest that States should ignore such measures. In those PM-10 nonattainment areas where mobile sources do significantly contribute to the PM-10 air quality problem, consistent with the statement above regarding section 108(f) measures, the State must, at a minimum, address the section 108(f) measures. Similarly, it follows that where a section 108(f) measure is reasonably available, sections 189(a)(1)(c) and 172(c)(1) require its implementation.

6. Redesignations

Section 107(d)(3) of the Act specifies the procedures and reqirements for changing an area's designation. Subparagraphs (A), (B), and (C) describe the requirements and schedules for such changes when initiated by the Administrator. An additional discussion of the reqirements and schedules is provided in 56 FR 16274 (April 22, 1991) describing the notification of States that certain PM-10, SO_2, and lead areas should be redesignated.

Section 107(d)(3)(E) specifies the conditions under which the Administrator may approve a Governor's request [submitted in accordance with section 107(d)(3)(D)] for redesignating an area from nonattainment to attainment. These conditions are as follows:

(1) The Administrator has determined that the NAAQS has been attained.

(2) The Administrator has fully approved the applicable implementation plan under section 110(k).

(3) The Administrator has determined that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementing the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions.

(4) The Administrator has fully approved the maintenance plan for the area as specified in section 175A.

(5) The State has met all applicable requirements for the area under section 110 and part D.

The remainder of this discussion describes how EPA will review a State request to redesignate an area from nonattainment to attainment, and what criteria EPA will use in determining whether the above conditions have been met.

(a) *Requests submitted before enactment.* Some States had submitted requests for redesignation prior to enactment of the 1990 CAAA that EPA

was unable to process before enactment. The EPA plans to review these requests carefully to determine whether the above conditions (as described further under "Requests Submitted After Enactment"), including the maintenance plan requirement, have been essentially satisfied by the State's actions under the provisions of the Act prior to enactment of the 1990 CAAA. The EPA will determine on a case-by-case basis what additional information is needed in order for the requests to be approvable. At a minimum, an appropriate maintenance plan showing maintenance of the standard at least 10 years from the time of EPA approval will still be needed before the request for redesignation is considered complete.

The maintenance plan requirement is not applicable in the very narrow circumstance where the amended Act does not apply to the redesignation. At the time of enactment, November 15, 1990, two redesignation actions were substantially completed—the Atlanta CO redesignation and the Green Bay SO_2 redesignation. Because the States had completed all necessary action, the Agency had done everything but prepare a final approval notice, and no adverse comments were received, EPA determined that the new redesignation requirements were not applicable (see 56 FR 37285 (August 6, 1991); 57 FR 3013 (January 27, 1992)).

States should consult with their EPA Regional Offices to determine what additional information is needed to supplement their requests for redesignation, including information to satisfy any new requirements under section 110 or subpart 1 of part D of the 1990 CAAA. For example, EPA plans to assume that the operating permits program requirements of title V (including the requirement for permit fees) that will be implemented in States over the next few years will effectively satisfy the section 110(a)(2)(L) requirement for permit fees in the subject areas (i.e., in areas for which requests for redesignation were submitted prior to enactment of the Act). States should consult with the Regional Offices about other new requirements under section 110 or subpart 1 of part D in the Act, and whether any additional State actions will be needed to satisfy those requirements.

The EPA believes that the language of section 107(d)(3)(E)(iii) clearly requires that the emission reductions that were achieved and enabled the area to attain the standard must be linked to enforceable regulations. Many of these regulations are rules representing RACT as required for an area before and/or after enactment of the 1990 CAAA (depending on the particular area). Even though EPA has found a range of deficiencies in State RACT rules and has notified many States that corrective action is needed,[36] EPA believes that the current emphasis for areas that had submitted a request for redesignation prior to enactment should be on the enforceability of the rules in place at the time of enactment. Therefore, for these types of areas, the States must make whatever corrections are necessary to ensure that the rules are and continue to be fully enforceable.[37]

As a matter of course, EPA will not require the full set of RACT corrections (e.g., lower source size applicability thresholds) in areas that had submitted a redesignation request prior to enactment and that were not violating the standard at the time of enactment. Imposing more stringent rules (unless needed for maintenance) appears to be unnecessary since applying the current State rules has resulted in attainment of the standard. In other words, the uncertainty of mathematical models or other techniques for projecting attainment when planning first occurred for these areas strongly supported the need for any possible "margin of safety" that might be provided by RACT measures or any other measures. But now that attainment has occurred, the justification or need for the margin of safety that might have been produced by the RACT measures (adopted and implemented in a manner consistent with EPA guidance and policies) is lessened. However, to satisfy the goals of section 107(d)(3)(E)(iii) and to ensure the soundness of the maintenance plan (discussed below), these areas still must ensure that their RACT rules are consistent with any guidance or policies concerning the enforceability of rules (e.g., adopting the most recent EPA test methods and procedures available at the time of the redesignation request). In addition to ensuring that appropriate RACT corrections have been made to ensure that the rules are enforceable, the State must show that the emission inventory that occurred during the time of no violations of the standard is based on the implementation of permanent and enforceable regulations rather than a "temporary" reduction in emissions, which may have resulted from a suspension of industrial production or other temporary change in the industrial or economic activity in the area. Reductions in emissions from shutdowns are considered permanent and enforceable to the extent those shutdowns have been reflected in the SIP, and all applicable permits have been modified accordingly.

During the pendency of these redesignation requests, EPA will not require these areas to adopt amended NSR program elements. However, these areas must continue to apply their existing NSR program or comply with the NSR permitting requirements of 40 CFR part 51, appendix S. Prior to redesignation, these areas also must adopt and be prepared to implement a permitting program that satisfies the requirements of part C and EPA's regulations implementing the PSD program. Areas should consider the need for offsets under the part C program to ensure that new sources do not "cause or contribute" to an increase in pollutant levels that would take the area out of compliance. If the area's redesignation request is rejected and the statutory deadlines for adopting amended part D permitting rules for the pollutant in question have passed, EPA may impose a construction ban pursuant to section 113(a)(5) until such time as the area adopts a part D program satisfying the NSR requirements of the CAAA.

The requirements of the applicable SIP will continue in force and effect even after the request has been approved and the area has been redesignated to attainment except to the extent the maintenance plan shows that such measures are not necessary to maintain the standard. The requirement for new or modified control measures or regulations for these areas is discussed below under "Improvement in Air Quality Results From Implementation of the SIP."

(b) *Requests submitted after enactment.* Any requests for redesignation from nonattainment to attainment that are submitted to EPA after enactment of the 1990 CAAA must satisfy the conditions in section 107(d)(3)(E) that were listed at the beginning of this section (III.H.6). Certain of these conditions (listed above) are further described below.

(1) *Determining whether the area has attained the ambient standard.* The NAAQS for ozone and CO are specified in 40 CFR 50.9 and 50.8, respectively.

[36] The EPA issued SIP calls to a number of States in 1988 and 1989 requiring that they correct their RACT rules as necessary to be consistent with EPA guidance and policies. In addition, new section 182(a)(2) specifically requires all ozone nonattainment areas with a marginal or above classification to correct or add RACT requirements for complying with the provision of pre-enactment section 172(b).

[37] See "Issues Relating to VOC Regulations, Cutpoints, Deficiencies, and Deviations," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality Management Division, May 25, 1988.

Appendix H of 40 CFR 50.9 (Interpretation of the National Ambient Air Quality Standards for Ozone) explains the procedures for determining whether violations of the ozone standard have occurred. A recent EPA memorandum [38] provides additional guidance on calculating "design values" and attainment for ozone and CO.

Any request for redesignation should be based on the most recently available and quality-assured air quality monitoring data, collected in accordance with the requirements of 40 CFR part 58.

(2) *Full approval of the applicable implemention plan.* Section 110(k)(3) allows the Administrator to approve or disapprove a plan revision in full or in part. Although section 110(k)(4) provides for conditional approval of a SIP revision in certain circumstances, a conditionally-approved plan revision is not to be treated as satisfying the requirements of the Act until the entire revision has been approved as satisfying the Act requirements. Therefore, in order for the request for redesignation of an area from nonattainment to attainment to be approved, the State must have satisfied all requirements of the Act that apply to the area. The requirements have not been met if a revision has been only partially approved (or has been partially disapproved).

(3) *Improvement in air quality results from implementing the SIP.* Section 107(d)(3)(E)(iii) requires that prior to approving a request for redesignation of an area from nonattainment to attainment, the Administrator must determine that the improvement in air quality has resulted from permanent and enforceable emission reductions resulting from implementing the SIP and applicable Federal measures and/or from other permanent and enforceable measures. Before it makes such a determination, EPA will require that these measures satisfy EPA guidance or requirements regarding enforceability, and that the emission inventory for the area during the time in which attainment has been demonstrated is based on permanent and enforceable regulations or measures.

The EPA believes that the language of section 107(d)(3)(E)(iii) clearly requires that the emission reductions that were achieved and enabled the area to attain the standard must be linked to enforceable regulations in the SIP. The EPA will assume that all control measures and regulations in the SIP for an area contribute to attainment of the standard. Therefore, any request for redesignation to attainment must show that permanent and enforceable rules are in place to implement these requirements. This showing will also support the State's demonstration that it has met all requirements that apply to the areas under section 110 and part D (discussed below under "Meeting section 110 and part D Requirements").

In addition to showing that it has developed enforceable rules and measures implementing the requirements that apply to the area, the State must show that the emission inventory that occured during the time of no violations of the standard is based on the implementation of permanent and enforceable regulations rather than a temporary reduction in emissions, which may have resulted from a suspension of industrial production or other temporary change in the industrial or economic activity in the area. Reductions in emissions from shutdowns are considered permanent and enforceable to the extent those shutdowns have been reflected in the SIP and all applicable permits have been modified accordingly.

(4) *A fully approved maintenance plan.* The State must submit a maintenance plan in accordance with section 175A for any area the State requests be redesignated from nonattainment to attainment. This plan must provide for maintenance of the standard for at least 10 years from the anticipated date of redesignation. Eight years after the redesignation date, the State will be required to revise its SIP to provide for maintenance in the area for an additional 10 years (beyond the first 10-year period).

The maintenance plan consists of three basic components: An emission inventory, a maintenance demonstration, and contingency measures. The inventory must include the emissions that occurred during the same period associated with attaining the national standard. The EPA plans to issue additional guidance on preparing these inventories and other components (discussed below) of the maintenance plan.

For the maintenance demonstration, the State must either demonstrate that the future emission inventory will not exceed the inventory that existed at the time of the request for redesignation, or conduct an appropriate modeling analysis consistent with EPA's "Guidelines on Air Quality Models" that shows that the future mix of sources and emission rates when combined with control strategy for the area, will not cause any violations of the ambient standard. Under either alternative, the State must identify the mechanism that will be used to track the progress of the maintenance plan. Where the maintenance demonstration is based on the inventory, the State may choose to periodically update the emission inventory or periodically review the factors used to develop the inventory to determine whether any significant changes have occurred. Where the demonstration is based on modeling, the State may periodically review the assumptions and input data for the modeling analysis. Such reviews and/or updates may typically be done every 3 years. The maintenance plan must contain any additional measures as necessary to ensure that the standard will not be violated. Any future measures must be implemented before any violations might be anticipated, based on tracking of the emission inventory (under the first alternative, above) or the modeling assumptions and input data (under the second alternative).The maintenance plan must also include contingency measures to ensure that any violations can be quickly addressed should such violations occur after the area is designated to attainment. The EPA will review each request for redesignation on a case-by-case basis to determine what contingency measures are needed for possible violations. Section 175(d) requires the maintenance plan to contain, at a minimum, a commitment for the implementation of all measures that were part of the control strategy (i.e., the SIP) for the area prior to redesignation should violations occur in the future.[39] The plan should provide for prompt implementation of these measures with minimal administrative action on the part of the State or other government agency responsible for its implementation.

(5) *Meeting section 110 and subpart 1 (of part D) requirements.* In order to be redesignated from nonattainment to attainment, an area must have met all of

[38] "Ozone and Carbon Monoxide Design Value Calculations," William G. Laxton, Director, Technical Support Division, Office of Air Quality Planning and Standards, June 18, 1990.

[39] This provision implies that the State would have removed or reduced the stringency of certain measures in the SIP after the area was redesignated to attainment. The EPA is soliciting comment on the circumstances in which the State may remove or modify measures that are specifically required (e.g., enhanced I/M) or are required as part of the demonstration of attainment. Any approach would have to ensure that the maintenance plan would prevent future violations either through a limit on overall emissions or a rigorous modeling analysis, or some combination. EPA also solicits comment on the emission limit and modeling analysis should be applied. For example, should a limit on overall emissions be required at least for some period beyond the time the area is designated to attainment?

the applicable requirements in section 110 (regarding general provisions needed in a SIP) and in part D (regarding the requirements for nonattainment plans). Part D contains general provisions that apply to all nonattainment plans and certain sections that apply to specific pollutants (e.g., section 182 applies for ozone nonattainment areas).

Subpart 1 of part D contains the general requirements for nonattainment plans. Section 172(c) describes the provisions required in nonattainment plans. The requirements of subparagraphs (1) through (9) of section 172(c) must be satisfied before a request for redesignation can be approved. In addition, the conformity requirements of section 176 must be met. The discussion below describes further how EPA will assess compliance with these provisions.

(i) RFP. The requirements for RFP will not apply in evaluating a request for redesignation to attainment since, at a minimum, the air quality data for the area must show that the area has already attained. Showing that the State will make RFP towards attainment will, therefore, have no meaning at that point.

(ii) Emission inventory. The emission inventory requirements of section 172(a)(3) will be satisfied by the inventory requirements of the maintenance plan, as discussed above.

(iii) Identification of certain emission increases. Section 172(c)(4) requires an area, in developing its plan for attainment, to identify expected emissions increases that will result from new or modified major sources in a "zone to which economic development should be targeted" according to section 173(a)(1)(B). These provisions effectively allow the State to provide a "growth allowance" for sources in such an area in lieu of the offset requirements under section 173(a)(1)(A). Since this is an optional alternative to requiring the acquisition of offsets under section 173(a)(1)(A), it is not a prerequisite to redesignation. Moreover, once the area is redesignated attainment, these provisions will not apply since the PSD requirements of part C will become effective (see discussion in next section).

(iv) NSR Permit program. Generally, the requirements of the part D NSR permitting nonattainment program will be replaced by the PSD program once an area is redesignated to attainment.[40] (The exception is in ozone transport regions where the part D NSR requirements applicable to moderate areas would continue to apply along with PSD (part C) requirements.) However, to ensure that the PSD program can become fully effective immediately upon redesignation, EPA will require an area to make any needed NSR corrections to their part C NSR programs prior to redesignation.

(v) Other measures to provide attainment. Since attainment will have been reached, no additional measures are needed to provide for attainment. The need for additional measures to ensure that maintenance continues is addressed under the requirements for maintenance plans. Areas should consider the need for offsets under the part C program to ensure that new sources do not "cause or contribute" to an increase in pollutant levels that would take the area out of compliance.

(vi) Compliance with section 110(a)(2). In the requests for SIP redesignation, States must show that their plans satisfy the requirements under section 110. These requirements specify that the plans must contain enforceable emission limits, monitoring requirements, procedures to prevent interstate pollution problems, adequate resources to carry out the control programs, and other provisions related to the development and administration of effective air pollution control programs; a more detailed discussion of these provisions is located in section H. States should consult with their EPA Regional Offices if additional guidance is needed with respect to section 110 requirements.

(vii) Equivalent techniques. The provisions of section 172(c)(8) allow the State to use equivalent techniques for modeling, inventorying, or other planning activities unless EPA determines that the techniques are less effective. This allowance will continue to apply with respect to the requirements of the maintenance plan.

(viii) Contingency measures. The section 172(c)(9) requirements for contingency measures are directed at ensuring RFP and attainment by the applicable date. These requirements no longer apply when an area has attained the standard and is eligible for redesignation. Furthermore, section 175(A) for maintenance plans (discussed above) provides specific requirements for contingency measures that effectively supersede the requirements of section 172(c)(9) for these areas.

(ix) Conformity. The State must show that the section 176 requirements of conformity have been met. The SIP conformity provisions must be consistent with EPA guidance issued pursuant to section 176(c)(4).

(6) *Meeting other part D requirements.* For classified ozone areas, the applicable requirements of sections 182, 184, and 185 must be met. For CO areas, the applicable requirements of section 187 must be satisfied. Satisfying these requirements for redesignation purposes is particularly important since the contingency measures of the maintenance plan will require, at a minimum, that the measures in place just before redesignation be implemented if future violations occur.

7. Transition Issues

(a) *Phase II of SIP calls.* Prior to enactment of the 1990 CAAA, the EPA issued SIP calls under section 110(a)(2)(H) of the Act to many areas based on a finding that their SIP's were substantially inadequate to provide for timely attainment of the ozone and/or CO NAAQS. In these SIP calls, EPA stated that States should respond in two phases to produce SIP's that would be adequate to attain and maintain the standards. The EPA first required States, in Phase I of their responses, to update their emissions inventories and make corrections in previously required regulations imposing RACT on existing stationary sources. Phase I responses were due generally by September 30, 1989.

The EPA advised States that they could delay submitting Phase II responses which included a full attainment demonstration and all additional regulations necessary to support such demonstrations, until EPA completed its policy on post-1987 nonattainment planning. Since EPA did not complete its post-1987 ozone/CO policy in anticipation of passage of the 1990 CAAA, EPA has never set a generally applicable date for Phase II SIP call responses. However, the basis underlying the SIP call remains valid even under the amended Act. The SIP's for the affected areas are still substantially inadequate to attain the relevant NAAQS. Since the date for submitting Phase I SIP call responses has already passed, and the amended Act requires all marginal and above ozone nonattainment areas subject to the RACT-correction aspects of the SIP calls to submit those corrections within 6 months of enactment, the requirement for Phase I responses to the SIP calls remains in effect for these areas. Thus, these areas should have submitted RACT corrections by May 15, 1991, pursuant to section 182(a)(2)(A) (see Section III.A.2.(b)).

[40] See footnotes 8 and 16.

However, as to Phase II SIP call responses, the amended Act alters both the substantive requirements and submission deadlines for full attainment demonstrations and their component control measures. Thus, although the obligation to submit a SIP adequate to attain and maintain the NAAQS remains in all SIP call areas, both the necessary elements of such plans and the timing of the plan submissions is now governed by the requirements of sections 182 and 187 of the amended Act. The EPA therefore will not require Phase II SIP call response submissions on schedule different from the schedules established by those sections. States should respond to Phase II of the SIP calls by making the submissions otherwise required by sections 182, 184, and 187. This new Phase II schedule supersedes any schedule EPA may have established for any area prior to enactment of the 1990 CAAA.

It should be noted that section 173(b) of the Act restricts the use of growth allowances by all areas that received SIP calls under the 1977 Act. Since EPA is keeping the pre-1990 CAAA SIP calls in effect, use of a growth allowance is restricted in any area that received a SIP call under the 1977 Act.

(b) *Construction ban.* The amended Act repeals the provisions found in section 110(a)(2)(I) of the 1977 Act requiring EPA to impose a construction ban in nonattainment areas that failed to submit plans meeting all of the requirements of part D of the Act. The amended Act also contains a savings clause in section 110(n)(3) that preserves certain existing construction bans. Construction bans remain in place only where imposed by virtue of a finding that the plan for the area did not contain an adequate NSR permitting program as required by section 172(b)(6) of the 1977 Act, or the plan failed to provide for timely attainment of the SO_2 NAAQS.

Thus, EPA cannot impose or maintain any previously imposed construction ban that was based on a finding that the plan for the area did not demonstrate timely attainment and maintenance of the ozone or CO NAAQS. The EPA is developing a rule amending its regulations at 40 CFR 52.24 to clarify the limited applicability of the construction ban and appealing the individual sections of 40 CFR part 52 that imposed the construction ban in each ozone or CO nonattainment area where the ban was imposed solely for failure to provide for timely attainment. Since the amended Act no longer authorizes EPA to impose bans on the above basis, EPA interprets the enactment of the Act's amendments as repealing these bans by operation of law as of the date of enactment and treat those amendments to part 52 as mere administrative housekeeping responsibilities. The EPA will treat those areas previously subject to the construction ban under these circumstances as no longer being subject to the ban after the date of enactment.

It should be noted that where construction bans were imposed for failure to demonstrate timely attainment of a standard (other than for SO_2) and also for failure to contain an adequate NSR program, the ban will remain in effect under the savings clause unless and until the State has submitted and EPA has approved such a permitting program. However, where the ban was originally imposed based only upon a finding that the plan did not provide for timely attainment and maintenance, event if the area in fact did not have an approved new source permitting program, the savings clause by its own terms will not preserve the construction ban. Such areas should of course promptly submit adequate permitting programs, but they will not be subject to the section 110(a)(2)(I) ban in the interim.

(c) *NSR.* The 1990 CAAA make numerous changes to the part D NSR permitting requirements for nonattainment areas. The EPA intends to propose rules by April 1992 to implement the NSR related changes mandated by the 1990 CAAA. In the interim period between passage of the 1990 CAAA and adoption of the Agency's regulations, EPA expects that numerous issues regarding the 1990 CAAA will arise. A March 11, 1991 EPA memorandum signed by John S. Seitz, Director of the Office of Air Quality Planning and Standards, sets forth EPA's position on the most important of these transitional issues involving the part D NSR program. Additional transitional guidance will be provided as needed.

8. General Savings Clause.

New Act section 193 sets forth a "General Savings Clause" governing retention of certain types of previously enacted or mandated requirements. Under section 193, any regulation, standard, rule, notice, order and guidance issued prior to November 15, 1990, shall remain in effect unless it is inconsistent with any provision of the 1990 CAAA or is revised by the Administrator. No control requirement in effect, or required to be adopted by an order, settlement agreement, or plan in effect prior to November 15, 1990, in any nonattainment area for any air pollutant, may be modified after enactment in any way unless the modification will result in equivalent or greater emissions reductions of that pollutant.

IV. EPA Requirements

A. SIP Processing Requirements

1. Completeness

Section 110(k)(1) required EPA to promulgate by August 15, 1991 (within 9 months of enactment), minimum criteria that any SIP submittal must meet. The EPA proposed an initial set of completeness criteria at 56 FR 23826 (May 24, 1991) and finalized them at 56 FR 42216 (August 26, 1991). Those notices describe the procedures for assessing whether a SIP submittal is complete and, therefore, adequate to trigger the Act requirement that EPA review and take action on the submittal. The completeness criteria provide a procedure and criteria that enable States to prepare adequate SIP submittals and enable EPA reviewers to promptly screen SIP submittals, identify those that are incomplete, and return them to the State for corrective action without having to go through rulemaking.

The criteria for determining whether a submittal by the State is complete have been separated into two categories: administrative information and technical support information. Administrative information includes the documentation necessary to demonstrate that the State has adhered to basic administrative procedures during the rule adoption process. Technical support information includes the documentation that adequately identifies all of the required technical components of the plan submissions.

When a submittal is determined to be complete, EPA will inform the State by letter of its determination. The EPA will then begin the formal review for approvability. If a submittal is determined to be incomplete, it will be returned to the State with a letter listing the deficiencies. Consistent with section 110(k)(1)(B), EPA will attempt to make completeness determinations within 60 days of receiving a submittal. However, a submittal will be deemed complete if a completeness determination is not made by EPA within 6 months of EPA's receipt of the submittal.

2. Partial Approvals

(a) *Full, partial, and limited approval and disapproval.* The EPA has authority to fully approve or disapprove a State SIP submittal under section 110(k)(3). However, in some instances a State's submission of a SIP or SIP revision will

include a provision that does not comply with one or more applicable requirements of the Act. The Agency must disapprove those portions of a SIP submittal that do not meet the applicable requirements of the Act (section 110(k)(3)). Where the disapproved portions of a SIP submittal are separable (i.e., disapproval of a provision will not affect the stringency of other portions of the SIP), EPA will partially approve the SIP and disapprove those separate parts. However, there may be instances where inseparable portions of the SIP submittal are disapproved. The EPA has interpreted the Act to provide flexibility in the instance where a submittal as a whole serves to improve air quality by providing progress toward attainment, RFP, and/or RACT, yet fails to comply with all of the Act's requirements. Such an action, called a limited approval, is not considered a complete action on the SIP submittal. To complete the action, EPA must also issue a limited disapproval whereby the Agency disapproves the SIP revision request as a whole for failing to meet one or more requirements of the Act.

(b) *Conditional approval.* Under section 110(k)(4), the Administrator may approve a plan revision based on a commitment of the State to adopt specific enforceable measures by a specified date but not later than 1 year after the date of EPA approval of the plan revision that incorporated that commitment. If EPA finds that the State fails to meet the commitment within that year, the conditional approval would automatically convert into a disapproval. The time periods culminating in imposition of sanctions and/or FIP's do not begin to run until the conditional approval is converted to a disapproval.

B. Sanctions and Other Safeguards

1. Background Under 1977 CAAA

The 1977 CAAA provided for two types of sanctions: Construction bans (i.e., a ban on construction or modification of major sources under section 110(a)(2)(I), of a ban on permitting such sources under section 173(4)) and various forms of funding restrictions. The construction bans automatically applied when EPA disapproved a SIP for failure to meet Act requirements as specified under section 110(a)(2)(I); the permitting ban applies when EPA found that a State failed to implement a SIP provision as specified under section 173(4). In addition, EPA had discretionary authority under section 113(a)(5) to impose a construction ban upon finding that a State was not acting in compliance with NSR permitting requirements in nonattainment areas. The EPA also had authority to apply the restrictions on air grants or highway funding under section 176 (a) and (b), or sewage treatment works funding under section 316(b).

2. Available Measures Under 1990 CAAA

The 1990 CAAA revised the law concerning sanctions and related measures. It sets forth specific criteria in section 179(a) to determine when EPA may apply two types of sanctions specified under section 179(b): Highway funding restrictions, and increased emissions offset ratios for new and modified sources. A third type of sanction, restrictions on air grant funding, is provided for under section 179(a). The construction ban provisions of section 110(a)(2)(I) were largely repealed (see section III.G.1.). However, several other provisions of the Act provide for construction bans and other sanctions to safeguard against increases in air pollution due to SIP planning or implementation failures.

Section 179(a) sets forth the four types of findings, disapprovals, or determinations (hereafter referred to as "findings") which may lead to the imposition of a sanction: That a State has failed to submit a SIP or an element of a SIP, or that the SIP or SIP element submitted fails to meet the completeness criteria for section 110(k); that EPA disapproves a SIP submission for a nonattainment area based on its failure to meet one or more plan elements required by the Act; that the State has not made any other submission required by the Act that meets the completeness criteria or had made a required submission that is disapproved by EPA for not meeting the Act's requirements; or that a requirement of an approved plan is not being implemented.

(a) *Highway funding sanction.* Consistent with the procedures and findings described below, the EPA may (and in some cases must) prohibit approval by the Secretary of Transportation of projects or grants (pursuant to title 23 of the U.S.C.) in the affected nonattainment area except where the Secretary has determined that the purpose of the project or grant is to improve a demonstrated safety problem. In addition, the Act provides exemptions for certain projects and grants that are intended to minimize air pollution problems (section 179(b)(1)).

(b) *Emission offset sanction.* The emission offset sanction provision (section 179(b)(2)) refers to the application of the emission offset requirements of section 173. This sanction applies to new or modified sources or emission units for which a permit is required under part D of the amended Act. Under this sanction, the ratio of emissions reductions that must be obtained to offset increased emissions (caused by the new or modified source) in the sanctioned area must be at least 2 to 1. The ozone pre-sanction ratio ranges between 1 to 1.5, depending upon the classification of the area. The EPA plans to promulgate Federal nonattainment rules at 40 CFR 52.10, which could be used to apply this sanction.

(c) *Grant funding sanction.* According to section 179(a), the Administrator may withhold all or part of the grants that support air pollution planning and control programs that the Administrator may award under section 105.

(d) *Section 173(a)(4) permitting ban.* Section 173 of the amended Act contains the requirements that must be met to issue a NSR construction permit for a new or modified major source in a nonattainment area. A prerequisite contained in section 173(a)(4) for issuing such permits is that the permit authority must find that the Administrator has not determined that the applicable implementation plan is not being adequately implemented as required by part D. This means that issuing construction permits for major stationary sources under section 173 is prohibited if the Administrator determines that the approved SIP for complying with the part D nonattainment requirements is not being adequately implemented for the nonattainment area in which the new source wants to locate or in which the source wishing to modify its facility is located.

(e) *Section 113(a)(5) construction prohibition.* Section 113(a)(5) authorizes EPA to prohibit the construction or modification of specific major stationary sources in all areas, including attainment areas, and to take other enforcement actions against individual sources whenever the Administrator finds that a State is not acting in compliance with any requirement or prohibition of the Act related to constructing new sources or modifying existing sources. The authority in section 113(a)(5) may also be used to issue general construction bans. After making a finding under section 113(a)(5), the Administrator may issue an order prohibiting the construction or modification of any major stationary source in any area to which such requirement applies, issue an administrative penalty order in

accordance with the requirements of section 113(d), or bring a civil action under section 113(b). Nothing in section 113(a)(5) shall preclude the United States from commencing, at any time, a criminal action under section 113(c) for any such violation.

(f) *Other sanction provisions.* Section 110(m) includes provisions on sanctions. The EPA will be discussing those provisions in a subsequent **Federal Register** notice.

3. Application and Timing of the Section 179 Sanctions

Eighteen months after the Administrator makes a finding concerning a State failure (as described below) with respect to a specific plan required by part D or in response to a SIP call, under section 179(a), the Administrator must apply either the highway or offset sanctions of section 179(b) unless the inadequacy has been corrected to EPA's satisfaction. The sanction applied will be chosen on a case-by-case basis depending on the circumstances involved. The EPA must apply both sanctions after 18 months if the Administrator finds a lack of good faith on the part of the State, or after 24 months if the deficiency is not corrected (within 6 months after the first sanction is imposed).

C. Federal Implementation Plans (FIP's)

The Administrator is required to promulgate a FIP within 2 years of finding that a State has failed to make a required submittal or that a received submittal does not satisfy the minimum completeness criteria established under section 110(k)(1)(A) (see 56 FR 42216, August 26, 1991), or disapproving a SIP submittal in whole or in part. Section 110(c)(1) mandates EPA promulgation of a FIP if the Administrator has not yet approved a correction proposed by the State before the time a final FIP is required to be promulgated. Within the Act's general provisions, a FIP is defined explicitly to allow for the inclusion of "economic incentives, such as marketable permits or auctions of emissions allowances" (section 302(y)). The EPA views the use of economic incentives in the context of a FIP as potentially appropriate, especially in cases of failure of ozone nonattainment areas to meet the RFP requirements. Such incentives may focus particularly on permitted sources. In developing FIP strategies that include economic incentives, EPA will look to its economic incentive program rules (section 182(g)(4)) due to be published November 15, 1992, as guidance in developing those elements of the FIP. Economic incentive programs are discussed in more detail in section III.G.3.

There may be areas where EPA has to promulgate Federal NSR regulations. The EPA intends to adopt at 40 CFR 52.10 Federal nonattainment area permitting rules that EPA can impose in States with deficient nonattainment NSR permit programs.

V. Miscellaneous

A. Relationship of Title I to Title V

1. Introduction

The purpose of this section is to discuss the issues originally described in the title V rulemaking preamble (56 FR 21712—May 10, 1991). The three main issues discussed here are how a combination of SIP's and permits can do the job that SIP's now do by themselves, the extent to which EPA will develop RACT protocols or procedures, and how EPA will approach marketable permits and trading of allowances in ozone nonattainment areas.

The approach taken here begins with the purposes of a SIP, which are to make demonstrations (of how attainment, maintenance, and progress will be achieved), and to provide a control strategy that will achieve the necessary reductions and otherwise meet the requirements of the Act.

The key questions are what fundamental principles apply to SIP's, and what features must SIP's and permits have to implement SIP control strategies and to satisfy these principles? The fundamental SIP principles will be used as guiding criteria for judging success in resolving the issues described above.

For a number of reasons explained below, certain elements must be contained in a SIP so that it will satisfy the identified principles and meet the Act's requirements. Other elements could be contained in permits, and still other elements may be shared and/or implemented in part by SIP's and in part by permits.

Following the discussion of fundamental SIP principles and associated SIP and permit features, this section proposes ways to answer the questions raised in the title V proposal.

2. Purposes of a SIP

One purpose of a SIP is to perform demonstrations of how various goals will be achieved. These goals are of three types: Attainment of the NAAQS, maintenance of the NAAQS once attainment occurs, and prescribed rates of progress. To satisfy these purposes, a number of assumptions must be made in the SIP regarding baseline emissions and future growth in various sectors of the economy. For these assumptions, SIP planners often rely on projections of population, motor vehicle travel or economic indicators made by other government agencies, and projections made by the air pollution control agency regarding the future effect of planned pollution control measures.

These assumptions, control strategies, and measures are developed as necessary to meet the attainment objectives for the area and the Act's requirements (e.g., RACT). These assumptions and measures are key components of the SIP. It is important to note that projections of the effect of planned air pollution control measures contained in the SIP's are not merely assumed but are enforced by regulations adopted as part of the SIP. Therefore, if the control measures are not implemented sufficiently to result in required reductions, the State or local agency, or EPA, can take action to enforce implementation of the regulations. This provides a means of achieving, at least in part, the goals of attainment and further progress required in the Act.

For purposes of illustrating the principles and elements of SIP's that apply to sources, the discussion below concentrates more on elements relevant to implementing the control strategies part of a SIP, rather than on those relevant to the demonstration. This simplifies the discussion and reflects the fact that the purpose of the permit is to implement measures, not perform demonstrations, which is unquestionably a purpose of the SIP.

3. Fundamental Principles for SIP's/ Control Strategy

To develop an effective SIP control strategy and to achieve the desired result, the SIP and any implementing instruments, including permits, should adhere to certain principles. These principles help provide assurance that the planned emissions reductions will be achieved. These principles are discussed in EPA's policy on emissions trading contained in 51 FR 43814 (December 4, 1986).

(a) *First principle.* The first principle is that the baseline emissions from the source and the control measures be quantifiable (i.e., a specific amount of emissions reductions can be ascribed to the measures). Baseline emissions must be represented accurately in the SIP in order for the benefits of the measure to be properly quantified. Furthermore, the emissions must be representative of the time period of the inventory. Likewise, the effect of the measure must be identified in order to assess the

contribution to the necessary emissions reductions. The value for a measure's effect can be used as a limit in a regulation, or it may be used alone or in combination with assumptions regarding operating hours or production, or as part of the projections in the demonstrations.

(b) *Second principle.* The second principle is that the measures be enforceable. Measures are enforceable when they are duly adopted, and specify clear, unambiguous, and measurable requirements. A legal means for ensuring that sources are in compliance with the control measure must also exist in order for a measure to be enforceable. This principle is well grounded in the Act. New section 110(a)(2) of the Act requires that SIP's include "enforceable emission limitations and other control measures" and "a program to provide for the enforcement of the measures" in the plan. Court decisions made clear that regulations must be enforceable in practice. A regulatory limit is not enforceable if, for example, it is impractical to determine compliance with the published limit.

(c) *Third principle.* The third principle is that the measures be replicable. This means that where a rule contains procedures for changing the rule, interpreting the rule, or determining compliance with the rule, the procedures are sufficiently specific and nonsubjective so that two independent entities applying the procedures would obtain the same result.

(d) *Fourth principle.* The fourth principle is that the control strategy be accountable. This means, for example, that source-specific limits should be permanent and must reflect the assumptions used in the SIP demonstrations. It also means that the SIP must contain means (such as operating permits issued under title V) to track emission changes at sources and provide for corrective action if emissions reductions are not achieved according to the plan. The Act provides for this tracking and remedial action in its requirements for meeting milestones and for contingency measures in SIP's. The EPA will use this principle to explore options for tracking emissions resulting from issuing permits or permit amendments.

The principles of quantification, enforceability, replicability, and accountability apply to all SIP's and control strategies, including those involving emissions trading, marketable permits and allowances. The EPA's emissions trading policy provides that only trades producing reductions that are surplus, enforceable, permanent, and quantifiable can get credit and be banked or used in an emissions trade.

4. Approaches To Ensure That Permits Properly Support SIP's.

The EPA has considered various ways that permits and SIP's can be configured to complement each other and still meet the principles discussed above. The following discussion covers some approaches.

The SIP remains the basis for demonstrating and ensuring attainment and maintenance of the national ambient air quality standards (NAAQS). The permit program collects and implements the requirements contained in the SIP as applicable to the particular permittee. Since permit must incorporate emission limitations and other requirements of the SIP, all SIP provisions applicable to a particular source will be defined and collected into a single document. The applicable requirements in the permit would include any recent SIP changes, whether as a result of a State or local SIP revision or of a FIP action by EPA. The EPA intends to assist in the implementation of the permit program through the use of model permits for numerous source categories.

As previously discussed, title V affords significant operational flexibility. The relationship between title V permits and SIP's is a key factor in determining the extent to which operational flexibility is available to sources, since each permit, in part, must assure compliance with the applicable implementation plan. The EPA recognizes that it will take time to complete the transition from a regulatory system where SIP's are the primary tool for implementing and enforcing the Act, to one where operating permits ultimately assume primary responsibility for implementation and enforcement.

The EPA is considering what means will aid in ensuring a smooth transition to increasingly general, and thus more flexible, SIP's, which may allow permits rather than the SIP's to specify the details of how SIP limits and objectives apply to subject sources. In particular, EPA will be seeking to develop information in the following areas:

(1) The most efficient ways of implementing requirements of SIP's through permits, such as moving detail from SIP's to permits;

(2) Flexible ways for sources to demonstrate compliance with reasonably available control technology (RACT) limits, such as through the use of protocols for defining equivalency or through the development of equivalency determinations in the permitting process (as discussed below); and

(3) Expanded use of emissions trading and marketable permits to achieve SIP objectives as well as providing a stable accountable mechanism for tracking and enforcing emissions reductions at a source.

EPA will be adopting provisions to facilitate the movement toward more flexible SIP's in its final rules to implement title V. EPA plans to include provisions which specify that no permit revision is required for emission trades through economic incentives or marketable permit programs, provided that the permit contains a means or process for implementing the program. Thus, a SIP containing a generic trading rule and a replicable procedure for implementing the rule through a permit may allow trading to occur without a permit revision, provided the permit contains the replicable procedure. This is similar to the way in which permits allow sources to shift among alternate scenarios that were initially provided for in the permit. It States choose to implement trading in this matter, the provisions of the permit allowing the trades must incorporate all of the procedural protections contained in the underlying SIP.

States may also elect to develop SIP's that set forth trading and compliance provisions that sources could use to comply with SIP limits. The SIP would have to include compliance requirements and procedures for the trade which are sufficiently specific to demonstrate compliance. Such provisions can prove useful to sources in cases where permits do not already provide for emission trades.

(a) *Increasing flexibility in SIP's through permits.* In addition, a State may choose to adopt a SIP provision that would authorize sources to meet either the SIP limit or an equivalent limit to be formulated in the permit system. The permit must contain the equivalency determination, as well as provisions that assure that the resulting emission limit is quantifiable, accountable, enforceable, and, based upon replicable procedures, is equivalent to the SIP limit. Consistent with these requirements, States may do so for all appropriate SIP requirements or only for specific requirements for which the State determines equivalency determinations are appropriate. The determination of what constitutes an equivalent limit could take place either during the permit issuance, or renewal process, or as a result of the significant permit modification procedures. The State retains discretion, subject to EPA veto, to decide if an alternative emission limit is justified in any particular case.

(b) *Developing more RACT protocols.* In the title V preamble, the EPA said that it would develop more flexible ways for sources to demonstrate compliance with RACT limits. One way is to use protocols defining equivalent means of compliance. For example, in 1980 EPA released the "Can Coating Policy," which allows cross-line averaging for can coating facilities and provides the calculation technique for doing so.

The EPA is undertaking a study to determine the extent to which multi-day and cross-line averaging can be used to provide specific industries more flexibility in meeting their VOC RACT requirements. This project is focusing on the graphic arts and aerospace industries. For this study, EPA is taking the following steps:

(i) Survey the can coating industry to determine how the protocol has been functioning and to collect data on daily and monthly emissions, coating usage and VOC content. These data will be used to determine whether there is a good and stable correlation between daily and monthly emissions rates and between cross-line and line-by-line emissions.

(ii) Survey aerospace and graphic arts sources to collect emissions data, coating usage and VOC content on a daily basis. These data also will be analyzed to determine the variability of emissions from day to day and line to line.

(iii) Based on the above information, EPA will determine the appropriateness of developing procedures for time-averaging and line-by-line compliance for the graphic arts and aerospace industries and issue these procedures as appropriate.

When EPA completes this process, it will then assess whether it is feasible and desirable to develop procedures for other source categories for which such procedures may be appropriate.

(c) *Exploring marketable permits/allowance trading.* The EPA fully expects that the use of emissions trading and economic incentives such as marketable permits or allowance trading will increase as the Act is implemented. In addition, EPA is committed to exploring ways to reduce the cost or burden to industry through the use of innovative measures that use the marketplace to reduce costs. And, as mentioned in its title V preamble, the EPA wants to find ways to achieve the goals of the Act without requiring time-consuming SIP revisions for every change at a source.

One way to minimize SIP revisions is through the use of replicable SIP procedures that are implemented by the permit. As long as the terms of the permit complied with the SIP rule, changes to the permit could be made without a SIP revision. The proposed title V regulation, for example, would not require a permit change for emission trades authorized under the Act if such changes were implemented consistently with the replicable procedure specified in the SIP.

The EPA believes that the same principles discussed previously also should apply to measures such as marketable permits, emission trades and allowances. In addition, the principles of surplus and consistency with the SIP should also apply to any trading program. For example, replicability must always be honored to assure that consistent and predictable benefits are derived from a marketable permits program. Also, the principle that baseline emissions and measures should be quantifiable is particularly important when applied to the level of emission trading that might occur in a large ozone nonattainment area.

The EPA does not believe that it has enough information at this time to fully resolve all of the practical questions mentioned above or in the title V preamble regarding marketable permits, trading, and allowances. The EPA believes that, in resolving such questions, it should apply the same principles mentioned above, namely, that such measures should be quantifiable, accountable, enforceable and implemented according to replicable procedures.

B. Tribal Implementation Plans

Section 107 of the 1990 CAAA adds several provisions to the statute that create the first express authority for EPA to treat Indian tribes as States for certain Act purposes. Section 107 also allows a tribe that qualifies for treatment as a State to develop and submit to EPA a tribal implementation plan (TIP) for implementation of the NAAQS on tribal lands (see Act sections 110(o) and 301(d)). Under section 301(d)(2), EPA is required to promulgate regulations by May 15, 1992 for treating of tribes as States. Section 301(d)(3) states that EPA may promulgate regulations setting forth the elements of TIP's and procedures for EPA action on them. In addition, section 301(d)(4) states that where EPA determines that treatment of Indian tribes as identical to States is not appropriate, the Agency may by regulation provide other means by which EPA will directly administer these provisions. In the preambles to the proposed and final rules, EPA will discuss other issues relating to implementation of the Act on tribal lands.

C. Section 179B Requirements

A new section 179B, International Border Areas, was added to the statute. This section applies to nonattainment areas that are affected by emissions emanating from outside the United States. This section requires EPA to approve a SIP if: The SIP or SIP revision meets all of the requirements applicable to it under the Act, other than a requirement that it demonstrate attainment and maintenance of the relevant NAAQS by the applicable attainment date; and the affected State establishes to EPA's satisfaction, that the SIP or revision would be adequate to attain and maintain the relevant NAAQS by the applicable attainment date but for emissions emanating from outside the United States. Further, any State that establishes to the satisfaction of EPA—with respect to an ozone, CO, or PM-10 nonattainment area in such a State—that the State would have attained the relevant NAAQS but for emissions emanating from outside the United States, shall not be subject to the following provisions: extension of the ozone attainment dates pursuant to section 181(a)(5), the fee provisions of section 185, and the bump-up provisions for failure to attain for ozone (section 181(b)(2),[41] CO (section 186(b)(2), and/or PM-10 (section 188(b)(2) NAAQS.[42]

[41] Note that the statute contained an erroneous reference to section 181(a)(2) instead of 181(b)(2).

[42] As noted, section 179B(d) states that PM-10 areas demonstrating attainment of the standards but for emissions emanating from outside the United States shall not be subject to section 188(b)(2) (reclassification for failure to attain). By analogy to this provision and applying canons of statutory construction, EPA will not reclassify before the applicable attainment date areas which can demonstrate attainment of the PM-10 standards but for emissions emanating from outside the United States. See section 188(b)(1). First, EPA believes section 179(B)(d) evinces a general congressional intent not to penalize areas where emissions emanating from outside the country are the but for cause of the PM-10 attainment problems. Further, if EPA were to reclassify such areas before the applicable attainment date, EPA, in effect, would be reading section 179(B)(d) out of the statute. Specifically, if EPA proceeded to reclassify before the applicable attainment date those areas qualifying for treatment under section 179(B), an area would never be subject to the provision in section 179(B)(d) which prohibits EPA from reclassifying such areas after the applicable attainment date. Canons of statutory construction counsel against interpreting the law such that language is rendered mere surplusage. Finally, note that section 179(B)(d) contains a clearly erroneous reference to carbon monoxide instead of PM-10 and that this section contains other errors. See, e.g., section 179(B)(c) reference to section 186(b)(9), which does not exist.

In demonstrating that an area could attain the relevant NAAQS but for emissions emanating from outside the United States, approved EPA modeling techniques should be used whenever possible. An emission inventory incorporating vehicle emissions occurring in the United States generated from vehicles registered in the adjacent foreign country must be completed by the State before modeling in the United States' side only and attempting to demonstrate attainment. The EPA recognizes that adequate data may not be available in areas outside the United States. Therefore, modeling (consistent with EPA's "Guidance on Air Quality Models, Revised") may not be possible in all cases. Because very few areas are likely to be affected by this provision, EPA will determine on a case-by-case basis whether the State has satisfactorily made the required demonstration. The State is encouraged to consult with the EPA Regional Office in developing any alternate demonstration methods. Methods that the State may want to consider include: using ozone episodes that do not involve international transport of emissions for modeling (see guidance document entitled "Criteria for Assessing Role of Transported Ozone/Precursors in Ozone Nonattainment Areas"), running the model with boundary conditions that reflect general background concentrations on the U.S. side, analyzing monitoring data if a dense network has been established, and using receptor modeling for PM-10. States should confer with the appropriate EPA Regional Office to establish appropriate technical requirements for these analyses.

VI. Other Requirements

A. Executive Order 12291

Under Executive Order 12291, EPA is required to judge whether an action is "major" and, therefore, subject to the requirement of a regulatory impact analysis. The Agency has determined that this action is exempt from classification as "major" because it is a compilation of interpretive rule and general statements of policy as defined in the Adminstrative Procedures Act (APA). Nevertheless, this notice was submitted to the Office of Management and Budget (OMB) for review.

A copy of the draft notice as submitted to OMB, any documents accompanying the draft, any written comments received from other agencies (including OMB), and any written responses to these comments have been included in the Docket.

B. Regulatory Flexibility Act

Whenever the Agency is required by section 553 of the APA or any other law to publish general notice and proposed rulemaking for any proposed rule, the Agency shall propose and make available for public comment an intial regulatory flexibility analysis.

The regulatory flexibility requirements do not apply for the General Preamble because it is not a regulatory action in the context of the APA or the Regulatory Flexibility Act.

Note: Appendices A through E will be published in a subsequent **Federal Register**.

Dated: March 27, 1992.

William K. Reilly,

Administrator.

[FR Doc. 92-7954 Filed 4-15-92; 8:45 am]

BILLING CODE 6560-50-M