



# Federal Register

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**Monday,  
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## **Part III**

## **Environmental Protection Agency**

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**40 CFR Part 52**

**Approval and Promulgation of  
Implementation Plans; State of California;  
2007 South Coast State Implementation  
Plan for 1997 Fine Particulate Matter  
Standards; 2007 State Strategy; PM<sub>2.5</sub>;  
Proposed Rule**

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 52**

[EPA-R09-OAR-2009-0366; FRL-9229-3]

**Approval and Promulgation of Implementation Plans; State of California; 2007 South Coast State Implementation Plan for 1997 Fine Particulate Matter Standards; 2007 State Strategy; PM<sub>2.5</sub>****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Proposed rule.

**SUMMARY:** EPA is proposing to approve in part and disapprove in part State implementation plan (SIP) revisions submitted by the State of California to provide for attainment of the 1997 annual and 24-hour PM<sub>2.5</sub> national ambient air quality standard (NAAQS) in the Los Angeles-South Coast Air Basin area (South Coast nonattainment area). The submitted SIP revisions are contained in the South Coast 2007 Air Quality Management Plan (South Coast 2007 AQMP) and portions of the 2007 State Strategy as revised in 2009. Specifically, EPA is proposing to approve the emissions inventories as meeting the requirements of the Clean Air Act (CAA) and EPA's fine particulate implementing regulations. EPA is also proposing to approve commitments to propose specific measures and meet specific aggregate emissions reductions by the South Coast Air Quality Management (District) and the California Air Resources Board (CARB) because the commitments strengthen the SIP. Finally, EPA is proposing to approve the air quality modeling demonstration as meeting the requirements of the CAA and EPA guidance. EPA is proposing to disapprove the attainment demonstration because it does not provide sufficient emissions reductions from adopted and EPA approved measures to provide for attainment of the NAAQS. As a result, EPA is also proposing to disapprove the reasonably available control measures/reasonably available control technology (RACM/RACT) and reasonable further progress (RFP) demonstrations and proposing not to grant California's request to extend to April 5, 2015 the deadline for the South Coast nonattainment area to attain the 1997 PM<sub>2.5</sub> NAAQS because these requirements are linked to approving the attainment demonstration under the 1997 PM<sub>2.5</sub> implementation rule. We are also proposing to disapprove the assignment of 10 tpd of NO<sub>x</sub> to the federal government. Finally, EPA is

proposing to disapprove PM<sub>2.5</sub> contingency measures and the motor vehicle emissions budgets (budgets) for the area's RFP years and attainment year. To the extent that the State can remedy the shortfall in emissions reductions for the attainment demonstration, which is the basis for the proposed disapproval of the attainment demonstration, EPA believes that many of the noted deficiencies could be addressed.

**DATES:** Any comments must arrive by January 21, 2011.**ADDRESSES:** Submit comments, identified by docket number EPA-R09-OAR-2009-0366, by one of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the on-line instructions.
- *E-mail:* [tax.wienke@epa.gov](mailto:tax.wienke@epa.gov).
- *Mail or deliver:* Marty Robin, Office of Air Planning (AIR-2), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105.

**Instructions:** All comments will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through <http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> Web site is an "anonymous access" system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. If EPA cannot read your comments due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

**Docket:** The index to the docket for this action is available electronically on the <http://www.regulations.gov> Web site and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California 94105. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available at either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR**

**FURTHER INFORMATION CONTACT** section below.

Copies of the SIP materials are also available for inspection at the following locations:

- California Air Resources Board, 2020 L Street, Sacramento, California 95812, and
  - South Coast Air Quality Management District, 21865 E. Copley Drive, Diamond Bar, California 91765.
- The SIP materials are also electronically available at: <http://aqmd.gov/aqmp/07aqmp/index.html> and <http://www.arb.ca.gov/planning/sip/sip.htm>.

**FOR FURTHER INFORMATION CONTACT:** Wienke Tax, Air Planning Office (AIR-2), U.S. Environmental Protection Agency, Region IX, (415) 947-4192, [tax.wienke@epa.gov](mailto:tax.wienke@epa.gov)

**SUPPLEMENTARY INFORMATION:**

Throughout this document, "we," "us" and "our" refer to EPA.

**Table of Contents**

- I. The PM<sub>2.5</sub> NAAQS and the South Coast PM<sub>2.5</sub> Nonattainment Area
- II. California's State Implementation Plan Submittals to Address PM<sub>2.5</sub> Attainment in the South Coast Nonattainment Area
  - A. California's SIP Submittals
    1. 2007 South Coast AQMP
    2. 2007 State Strategy
    3. Additional SIP Submittal Related to Motor Vehicle Emissions Budgets (Budgets)
  - B. CAA Procedural and Administrative Requirements for SIP Submittals
- III. CAA and Regulatory Requirements for PM<sub>2.5</sub> Attainment SIPs
- IV. Review of the South Coast 2007 AQMP and the South Coast Portion of the Revised 2007 State Strategy
  - A. Summary of EPA's Proposed Actions
  - B. Emission Inventories
    1. Requirements for Emission Inventories
    2. Emission Inventories in the South Coast 2007 AQMP
  3. Proposed Action on the Emission Inventories
  - C. Reasonably Available Control Measures (RACM)/Reasonably Available Control Technology (RACT) and Adopted Control Strategy
    1. Requirement for RACM/RACT
    2. RACM/RACT Demonstration in the SIP
      - a. District's RACM/RACT Analysis and Adopted Control Strategy
      - b. CARB's RACM Analysis and Adopted Control Strategy
      - c. The Local Jurisdiction's RACM Analysis
    3. Proposed Actions on RACM/RACT Demonstration and Adopted Control Strategy
  - D. Attainment Demonstration
    1. Requirements for Attainment Demonstration
    2. Air Quality Modeling in the South Coast 2007 AQMP
    3. PM<sub>2.5</sub> Precursors Addressed in the South Coast 2007 AQMP
    4. Extension of the Attainment Date

5. Attainment Demonstration
  - a. Enforceable Commitments
  - i. The Commitments Do Not Represent a Limited Portion of Required Reductions
  - ii. The State Is Capable of Fulfilling Its Commitment
  - iii. The Commitment Is for a Reasonable and Appropriate Period of Time
  - b. Federal Reductions
6. Proposed Action on the Attainment Demonstration
- E. Reasonable Further Progress Demonstration
  1. Requirements for RFP
  2. RFP Demonstration in the South Coast 2007 AQMP
  3. Proposed Action on the RFP Demonstration
- F. Contingency Measures
  1. Requirements for Contingency Measures
  2. Contingency Measures in the South Coast 2007 AQMP
  3. Proposed Action on the Contingency Measures
- G. Motor Vehicle Emissions Budgets for Transportation Conformity
- H. Mid-Course Review
- V. EPA's Proposed Actions
  - A. EPA's Proposed Approvals and Disapprovals
  - B. CAA Consequences of a Final Disapproval
- VI. Statutory and Executive Order Reviews

## I. The PM<sub>2.5</sub> NAAQS and the South Coast PM<sub>2.5</sub> Nonattainment Area

On July 18, 1997 (62 FR 36852), EPA established new national ambient air quality standards (NAAQS) for PM<sub>2.5</sub>, particulate matter with a diameter of 2.5 microns or less, including annual standards of 15.0 µg/m<sup>3</sup> based on a 3-year average of annual mean PM<sub>2.5</sub> concentrations, and 24-hour (or daily) standards of 65 µg/m<sup>3</sup> based on a 3-year average of the 98th percentile of 24-hour concentrations. 40 CFR 50.7 EPA established the standards based on substantial evidence from numerous health studies demonstrating that serious health effects are associated with exposures to PM<sub>2.5</sub> concentrations above the levels of these standards.

Epidemiological studies have shown statistically significant correlations between elevated PM<sub>2.5</sub> levels and premature mortality. Other important health effects associated with PM<sub>2.5</sub> exposure include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), changes in lung function and increased respiratory symptoms, as well as new evidence for more subtle indicators of cardiovascular health. Individuals particularly sensitive to PM<sub>2.5</sub> exposure include older adults, people with heart and lung disease, and children. *See, EPA, Air Quality Criteria for Particulate Matter,*

No. EPA/600/P-99/002aF and EPA/600/P-99/002bF, October 2004.

PM<sub>2.5</sub> can be emitted directly into the atmosphere as a solid or liquid particle ("primary" or "direct PM<sub>2.5</sub>") or can be formed in the atmosphere as a result of various chemical reactions from precursor emissions of nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC) and ammonia (NH<sub>3</sub>) ("secondary PM<sub>2.5</sub>"). *See* 72 FR 20586, 20589 (April 25, 2007)

Following promulgation of a new or revised NAAQS, EPA is required by CAA section 107(d) to designate areas throughout the United States as attaining or not attaining the NAAQS. On January 5, 2005, EPA published initial air quality designations for the 1997 PM<sub>2.5</sub> NAAQS, based on air quality monitoring data for three-year periods of 2001–2003 or 2002–2004. (70 FR 944). These designations became effective on April 5, 2005.

EPA designated the "Los Angeles-South Coast Air Basin" area (South Coast nonattainment area), including Orange County, the southwestern two-thirds of Los Angeles County, southwestern San Bernardino County, and western Riverside County as nonattainment for both the 1997 24-hour and the annual PM<sub>2.5</sub> standards. The South Coast PM<sub>2.5</sub> nonattainment area is home to about 17 million people, has a diverse economic base, and contains one of the highest-volume port areas in the world. For a precise description of the geographic boundaries of the South Coast PM<sub>2.5</sub> nonattainment area, *See* 40 CFR 81.305.<sup>1</sup> The local air district with primary responsibility for developing a plan to attain the PM<sub>2.5</sub> NAAQS in this area is the South Coast Air Quality Management District (District).

Ambient annual PM<sub>2.5</sub> levels in the South Coast are among the highest recorded in the United States at 18.8 µg/m<sup>3</sup> for the 2007–2009 period.<sup>2</sup> In the South Coast, the levels and composition

of PM<sub>2.5</sub> differ by geographic location, with higher PM<sub>2.5</sub> concentrations typically occurring in metropolitan Los Angeles and in the inland valley areas of San Bernardino and metropolitan Riverside Counties. The higher PM<sub>2.5</sub> concentrations in Los Angeles County are mainly due to secondary formation of particulates. *See* South Coast 2007 AQMP, pages 2–13.

## II. California's State Implementation Plan Submissions to Address PM<sub>2.5</sub> Nonattainment in the South Coast Nonattainment Area

### A. California's SIP Submittals

Designation of an area as nonattainment starts the process for a state to develop and submit to EPA a State implementation plan (SIP) under title 1, part D of the CAA. This SIP must include, among other things, a demonstration of how the NAAQS will be attained in the nonattainment area as expeditiously as practicable, but no later than the date required by the CAA. Under CAA section 172(b), a State has up to three years after an area's designation to nonattainment to submit its SIP to EPA. For the 1997 PM<sub>2.5</sub> NAAQS, these nonattainment SIPs were due no later than April 5, 2008.

California has made several SIP submittals to address PM<sub>2.5</sub> nonattainment in the South Coast nonattainment area. The two principal ones are the District's 2007 PM<sub>2.5</sub> Plan (South Coast 2007 AQMP) and the CARB's State Strategy for California's 2007 State Implementation Plan (2007 State Strategy).

### 1. 2007 South Coast AQMP

On November 28, 2007, the California Air Resources Board (CARB or State) submitted the "Final 2007 Air Quality Management Plan, June 2007."<sup>3</sup> This Plan was adopted by the District on June 1, 2007 and submitted to CARB on October 24, 2007.<sup>4</sup> The South Coast

<sup>1</sup> On October 17, 2006, EPA strengthened the 24-hour PM<sub>2.5</sub> NAAQS by lowering the level to 35 µg/m<sup>3</sup>. At the same time, we retained the level of the annual PM<sub>2.5</sub> standard at 15.0 µg/m<sup>3</sup>. 71 FR 61144. On November 13, 2009, EPA designated areas, including the South Coast, with respect to the revised 24-hour NAAQS. 74 FR 58688. California is now required to submit an attainment plan for the 35 µg/m<sup>3</sup> standards by December 14, 2012. In this preamble, all references to the PM<sub>2.5</sub> NAAQS, unless otherwise specified, are to the 1997 24-hour PM<sub>2.5</sub> standards of 65 µg/m<sup>3</sup> and annual standards of 15 µg/m<sup>3</sup>.

<sup>2</sup> *See* the Air Quality Subsystem (AQS) Preliminary Design Value Report dated August 26, 2010 in the docket for today's action. 18.8 µg/m<sup>3</sup> is the highest design value in the South Coast nonattainment area. The design value is the three year average of annual means of a single monitoring site. (*See* 40 CFR 50 Appendix N Section 1(c)(1)).

<sup>3</sup> The South Coast 2007 AQMP is the first South Coast Plan to address PM<sub>2.5</sub>. We have previously acted on numerous South Coast air quality plans for ozone, PM-10, carbon monoxide, and NO<sub>2</sub>, such as the 1997/1999 AQMP. We approved the ozone portion of the 1997 South Coast AQMP, as amended in 1999, on April 10, 2000 (*See* 65 FR 18903). Our most recent action on a SIP addressing the CAA requirements for the South Coast ozone nonattainment area was our partial approval and partial disapproval of the 2003 AQMP (*See* 74 FR 10176, March 10, 2009). Because the District prepares integrated plans that address multiple pollutants, and also controls VOC and NO<sub>x</sub> as precursors to PM<sub>2.5</sub>, we will refer to control measures and control measure commitments from the 2003 AQMP further in this notice.

<sup>4</sup> *See* November 28, 2007 letter to Wayne Nastri, Regional Administrator, EPA Region 9, from James N. Goldstone, Executive Officer, CARB, with enclosures.

2007 AQMP includes a PM<sub>2.5</sub> attainment demonstration for the South Coast. In order to meet relevant CAA requirements for the PM<sub>2.5</sub> NAAQS, the South Coast 2007 AQMP includes base and projected year PM<sub>2.5</sub> emissions inventories for the South Coast nonattainment area; air quality monitoring data; short-, medium- and long-term District control measures; a summary of CARB's control measures; transportation control measures (TCMs); a demonstration of RFP; a modeled attainment demonstration; a demonstration of RACM/RACT; contingency measures for the 1997 PM<sub>2.5</sub> RFP and for attainment for the South Coast PM<sub>2.5</sub> nonattainment area; and a request to extend the attainment date for the 1997 PM<sub>2.5</sub> NAAQS to April 5, 2015.<sup>5</sup> The South Coast 2007 AQMP submittal also includes District Governing Board Resolution 07–9 adopting the final South Coast 2007 AQMP. The South Coast 2007 AQMP also contains documentation of the District's public process, including written responses to all public comments received.

## 2. 2007 State Strategy

To demonstrate attainment, the South Coast 2007 AQMP relies in part on measures in the 2007 State Strategy. The 2007 State Strategy was adopted by CARB on September 27, 2007 and submitted to EPA on November 16, 2007.<sup>6</sup> It discusses CARB's overall approach to addressing, in conjunction with local plans, attainment of both the 1997 PM<sub>2.5</sub> and 8-hour ozone NAAQS not only in the South Coast nonattainment area but also in California's other nonattainment areas such as the San Joaquin Valley and the Sacramento area. It also includes CARB's commitments to propose 15 defined State measures<sup>7</sup> and to obtain specific amounts of aggregate emissions reductions of direct PM<sub>2.5</sub>, NO<sub>x</sub>, VOC and SO<sub>x</sub> in the South Coast from sources under the State's jurisdiction,

primarily on- and off-road motor vehicles and engines.

On August 12, 2009, CARB submitted the "Status Report on the State Strategy for California's 2007 State Implementation Plan (SIP) and Proposed Revision to the SIP Reflecting Implementation of the 2007 State Strategy", dated March 24, 2009, adopted April 24, 2009 ("2009 State Strategy Status Report"),<sup>8</sup> which updates the 2007 State Strategy to reflect its implementation during 2007 and 2008.

In today's proposal, we are evaluating only those portions of the 2007 State Strategy as revised in 2009<sup>9</sup> that are relevant for attainment of the 1997 PM<sub>2.5</sub> standards in the South Coast.

## 3. Additional SIP Submittal Related to Motor Vehicle Emissions Budgets (Budgets)

In addition to the SIP submittals for the 1997 PM<sub>2.5</sub> NAAQS mentioned above, on April 4, 2008, the District Governing Board approved an alternative approach for transportation conformity motor vehicle emission budgets for the South Coast nonattainment area. This new approach was based on the 2007 SIP baseline emissions reflecting only the regulations adopted as of October 2006 for all milestone years up to the attainment years. The CARB Governing Board approved Resolution 08–27 itemizing the modifications to the South Coast nonattainment area transportation conformity emission budgets. The revised PM<sub>2.5</sub> motor vehicle emissions budgets were submitted as an amendment to the California SIP on April 30, 2008. We are acting on those budgets today.

## B. CAA Procedural and Administrative Requirements for SIP Submittals

CAA sections 110(a)(1) and (2) and 110(l) require a state to provide reasonable public notice and opportunity for public hearing prior to the adoption and submittal of a SIP or SIP revision. To meet this requirement, every SIP submittal should include evidence that adequate public notice was given and a public hearing was held consistent with EPA's implementing regulations in 40 CFR 51.102.

Both the District and CARB have satisfied applicable statutory and

regulatory requirements for reasonable public notice and hearing prior to adoption and submittal of the South Coast 2007 AQMP. The District conducted public workshops, provided public comment periods, and held public hearings prior to the adoption of the South Coast 2007 AQMP on June 1, 2007 (District Governing Board Resolution No. 07–9). CARB provided the required public notice and opportunity for public comment prior to its September 27, 2007 public hearing on the plan. See CARB Resolution No. 07–41.

CARB conducted public workshops, provided public comment periods, and held a public hearing prior to the adoption of the 2007 State Strategy on September 27, 2007. (CARB Resolution No. 07–28). CARB also provided the required public notice, opportunity for public comment, and a public hearing prior to its April 24, 2009 adoption of the 2009 State Strategy Status Report. See CARB Resolution 09–34, April 24, 2009.

The SIP submittals include proof of publication for notices of the District and CARB public hearings, as evidence that all hearings were properly noticed. We therefore find that the submittals meet the procedural requirements of CAA sections 110(a) and 110(l).

CAA section 110(k)(1)(B) requires EPA to determine whether a SIP submittal is complete within 60 days of receipt. This section also provides that any plan that EPA has not affirmatively determined to be complete or incomplete will become complete 6 months after the date of submittal by operation of law. EPA's SIP completeness criteria are found in 40 CFR part 51, Appendix V.

The South Coast 2007 AQMP became complete by operation of law on May 28, 2008. The November 16, 2007 submission of the 2007 State Strategy and the 2009 revisions to the Strategy became complete by operation of law on May 16, 2008 and February 12, 2010, respectively.

## III. CAA and Regulatory Requirements for PM<sub>2.5</sub> Attainment SIPs

EPA is implementing the PM<sub>2.5</sub> NAAQS under Title 1, Part D, subpart 1 of the CAA, which includes section 172, "Nonattainment plan provisions." Section 172(a)(2) establishes the attainment date for a PM<sub>2.5</sub> nonattainment area "as expeditiously as practicable" but no later than five years after the area's designation as nonattainment. This section also allows EPA to grant up to a five-year extension of an area's attainment date based on the severity of the area's nonattainment and

<sup>5</sup> While the attainment date for PM<sub>2.5</sub> areas with a full five-year extension would be April 5 2015, reductions must be implemented by 2014 to achieve attainment by that date. See 40 CFR 51.1007(b). We refer, therefore, to 2014 as the "attainment year" and April 5, 2015 as the "attainment date."

<sup>6</sup> See CARB Resolution No. 07–28, September 27, 2007 with attachments and letter from James N. Goldstone, Executive Officer, CARB, to Wayne Nastri, Regional Administrator, EPA Region 9, November 16, 2007 with enclosures.

<sup>7</sup> The 2007 State Strategy also includes measures to be implemented by the California Bureau of Automotive Repair (Smog Check improvements) and the California Department of Pesticide Regulation (VOC reductions from pesticide use). See 2007 State Strategy, p. 64–65 and CARB Resolution 7–28, Attachment B, p. 8.

<sup>8</sup> See CARB Resolution No. 09–34, April 24, 2009 and letter, James N. Goldstone, Executive Officer, CARB to Wayne Nastri, Regional Administrator, EPA Region 9, August 12, 2009 with enclosures. Only pages 11–27 of the 2009 State Strategy Status Report are submitted as a SIP revision. The balance of the report is for informational purposes only. See Attachment A to CARB Resolution No. 09–34.

<sup>9</sup> We will also refer to the 2007 State Strategy as revised in 2009 as the "revised 2007 State Strategy."

the availability and feasibility of controls. EPA designated the South Coast as a nonattainment area effective April 5, 2005, and thus the applicable attainment date is no later than April 5, 2010 or, should EPA grant a full five-year extension, no later than April 5, 2015.

Section 172(c) contains the general statutory planning requirements applicable to all nonattainment areas, including the requirements for emissions inventories, RACM/RACT, attainment demonstrations, RFP demonstrations, and contingency measures.

On April 25, 2007, EPA issued the Clean Air Fine Particle Implementation Rule for the 1997 PM<sub>2.5</sub> NAAQS. 72 FR 20586, codified at 40 CFR part 51, subpart Z (PM<sub>2.5</sub> implementation rule). The PM<sub>2.5</sub> implementation rule and its preamble address the statutory planning requirements for emissions inventories, RACM/RACT, attainment demonstrations including air quality modeling requirements, RFP demonstrations, and contingency measures. This rule also addresses other matters such as which PM<sub>2.5</sub> precursors must be addressed by the State in its PM<sub>2.5</sub> attainment SIP, applicable attainment dates, and the requirement for mid-course reviews.<sup>10</sup> We will discuss each of these CAA and regulatory requirements for attainment plans in more detail below.

<sup>10</sup> In June 2007, a petition to the EPA Administrator was filed on behalf of several public health and environmental groups requesting reconsideration of four provisions in the PM<sub>2.5</sub> implementation rule. See EarthJustice, Petition for Reconsideration, "In the Matter of Final Clean Air Fine Particle Implementation Rule," June 25, 2007. These provisions are (1) the presumption that compliance with the Clean Air Interstate Rule satisfies the NO<sub>x</sub> and SO<sub>2</sub> RACT requirements for electric generating units; (2) the deferral of the requirement to establish emission limits for condensable particulate matter (CPM) until January 1, 2011; (3) revisions to the criteria for analyzing the economic feasibility of RACT; and (4) the use of out-of-area emissions reductions to demonstrate RFP. These provisions are found in the PM<sub>2.5</sub> implementation rule and preamble at 20623–20628, 40 CFR 51.1002(c), 20619–20620, and 20636, respectively. On May 13, 2010, EPA granted the petition with respect to the fourth issue. Letter, Gina McCarthy, EPA, to David Baron and Paul Cort, Earthjustice, May 13, 2010. EPA is currently considering the other issues raised in the petition.

Neither the District nor the State relied on the first, third, or fourth of these provisions in preparing the South Coast 2007 AQMP or 2007 State Strategy. The District has deferred CPM limits in its rules. EPA does not believe that this deferral adversely affects the Plan's RACT or expeditious attainment demonstrations. See section II.D.3 of the TSD for this proposal. EPA will evaluate any rule adopted or revised by the District after January 1, 2011 to assure that it appropriately addresses CPM.

#### IV. Review of the South Coast 2007 AQMP and the South Coast Portion of the 2007 State Strategy

##### A. Summary of EPA's Proposed Actions

EPA is proposing to approve in part and disapprove in part those portions of the South Coast 2007 AQMP and those portions of the 2007 State Strategy as revised in 2009 specific to the 1997 PM<sub>2.5</sub> NAAQS in the South Coast. We are proposing to approve the base year and baseline emissions inventories in these SIP revisions as meeting the applicable requirements of the CAA and the PM<sub>2.5</sub> implementation rule. We are also proposing to approve the District's and CARB's commitments to propose specific measures and to meet specific aggregate emissions reductions in these revisions as strengthening the SIP, as well as the District's air quality modeling demonstration as meeting the applicable requirements of the CAA and EPA guidance.

We are proposing to disapprove the attainment demonstration, RACM/RACT analysis, RFP demonstration, and California's request to extend the attainment date to 2015 as not meeting the applicable requirements of the CAA and the PM<sub>2.5</sub> implementation rule because they are dependent on the approval of the attainment demonstration (See 40 CFR 51.1009 and 51.1010). For the attainment demonstration, we are proposing to approve the air quality modeling, but we are proposing to disapprove the overall demonstration because it relies too extensively on commitments to emissions reductions in lieu of fully adopted and submitted rules. Rules that have either not been adopted in final form or have not been submitted to EPA cannot be credited toward the attainment demonstration. We are proposing to disapprove the motor vehicle emissions budgets for the RFP milestone years and the attainment year, because they are derived from RFP and attainment demonstrations which we are proposing to disapprove. Finally, we are proposing to disapprove the RFP and attainment contingency measures as not meeting the applicable requirements of the CAA and the PM<sub>2.5</sub> implementation rule. To the extent that the State can remedy the shortfall in emissions reductions for the attainment demonstration, which is the basis for the proposed disapproval of the attainment demonstration, EPA believes that many of the noted deficiencies could be addressed.

EPA's analysis and findings are summarized below and are described in more detail in the technical support document (TSD) for this proposal,

which is available on line at <http://www.regulations.gov> in the docket for this proposal (EPA–R09–OAR–2009–0366), or from the EPA contact listed at the beginning of this notice.

##### B. Emissions Inventories

###### 1. Requirements for Emissions Inventories

CAA section 172(c)(3) requires states to submit a "comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant." The PM<sub>2.5</sub> implementation rule requires states to include direct PM<sub>2.5</sub> emissions and emissions of all PM<sub>2.5</sub> precursors in this inventory, even if it has determined that control of any of these precursors is not necessary for expeditious attainment. 40 CFR § 51.1008(a)(2) and 72 FR 20586, at 20648. Direct PM<sub>2.5</sub> includes condensable particulate matter. See 40 CFR 51.1000. PM<sub>2.5</sub> precursors are NO<sub>x</sub>, SO<sub>2</sub>, VOC, and ammonia (NH<sub>3</sub>).<sup>11</sup> *Id.* The inventories should meet the data requirements of EPA's Consolidated Emissions Reporting Rule (codified at 40 CFR part 51 subpart A) and include any additional inventory information needed to support the SIP's attainment demonstration and (where applicable) RFP demonstration. 40 CFR 51.1008(a)(1) and (2).

A baseline emission inventory is required for the attainment demonstration and for meeting RFP requirements. As determined on the date of designation, the base year for this inventory should be the most recent calendar year for which a complete inventory was required to be submitted to EPA. The baseline emission inventory for calendar year 2002 or other suitable year should be used for attainment planning and RFP plans for areas initially designated nonattainment for the PM<sub>2.5</sub> NAAQS in 2005. 40 CFR 51.1008(b).

EPA has provided additional guidance for PM<sub>2.5</sub> emission inventories in "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter NAAQS and Regional Haze Regulations," November 2005 (EPA–454/R–05–001).

###### 2. Emissions Inventories in the South Coast 2007 AQMP

The baseline planning inventories for direct PM<sub>2.5</sub> and all PM<sub>2.5</sub> precursors for the South Coast nonattainment area together with additional documentation for the inventories are found in

<sup>11</sup> The District controls sulfur oxides (SO<sub>x</sub>), which includes SO<sub>2</sub>, and considers the two terms interchangeable for emissions purposes. We will use SO<sub>x</sub> in this notice.

Appendix III of the South Coast 2007 AQMP. Average annual day baseline inventories are provided for the years 2002, 2005 (the reference year for the air quality modeling) and for the years 2008, 2010, 2011, and 2014. The baseline inventories incorporate reductions from federal, state, and District measures adopted prior to 2007

(“baseline measures”). South Coast 2007 AQMP, page 3–1. The District also provided both summer and winter planning inventories for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors. South Coast 2007 AQMP, Appendix III, page III–1–23.

Table 1 is a summary of the average annual day inventories for directly-emitted PM<sub>2.5</sub> and for the PM<sub>2.5</sub>

precursors NO<sub>x</sub>, VOC, and SO<sub>x</sub> for the baseline modeling year of 2005 and the targeted attainment year of 2014 from the South Coast 2007 AQMP (derived from Appendix A, Table A–2). It is these inventories that provide the basis for the control measure analysis and the RFP and attainment demonstrations in the South Coast 2007 AQMP.

TABLE 1—SOUTH COAST NONATTAINMENT AREA EMISSIONS INVENTORY SUMMARY FOR PM<sub>2.5</sub> AND PM<sub>2.5</sub> PRECURSORS FOR THE 2005 BASELINE YEAR AND 2014 ATTAINMENT YEAR

[Annual average day emissions in tons per day]<sup>a</sup>

Emissions inventory category	NO <sub>x</sub>		VOC		PM <sub>2.5</sub>		SO <sub>x</sub>		NH <sub>3</sub>	
	2005	2014	2005	2014	2005	2014	2005	2014	2005	2014
Stationary/Areawide Sources .....	87	71	259	260	58	63	22	17	75	68
On-road Mobile Sources .....	526	287	264	159	20	17	4	2	29	15
Off-road Mobile Sources .....	360	293	208	157	22	18	37	25	n/a	n/a
Total .....	972	650	731	566	101	98	63	45	104	83

<sup>a</sup> Numbers may not add due to rounding.

As a starting point for the South Coast 2007 AQMP's inventories, the District used CARB's 2002 base year inventory. An example of this inventory and CARB's documentation for its inventories can be found in Appendices A and F, respectively, of the 2007 State Strategy. The 2002 inventory for the South Coast nonattainment area was projected to 2005 and future years using CARB's California Emission Forecasting and Planning Inventory System (CEFIS). South Coast 2007 AQMP, Appendix III, page III–1–1. Both base year and baseline inventories use the current version of California's mobile source emissions model approved by EPA for use in SIPs, EMFAC2007 V2.3, for estimating on-road motor vehicle emissions. 73 FR 3464 (January 18, 2008). Off-road inventories were developed using the CARB off-road model. Ammonia emissions estimates were provided separately by the District.<sup>12</sup>

### 3. Proposed Action on the Emission Inventories

We have reviewed the emissions inventories in the South Coast 2007 AQMP and the inventory methodologies used by the District and CARB for consistency with CAA requirements, the PM<sub>2.5</sub> implementation rule, and EPA's guidance. We find that the base year and projected baseline year inventories are comprehensive, accurate, and current inventories of actual or projected emissions of PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors in the South Coast nonattainment area

as of the date of their submittal. We therefore propose to approve these inventories as meeting the requirements of CAA section 172(c)(3), the PM<sub>2.5</sub> implementation rule and applicable EPA guidance. We provide more detail on our review of the inventories in section II.A. of the TSD for this proposal.

#### *C. Reasonably Available Control Measures (RACM)/Reasonably Available Control Technology (RACT) and Adopted Control Strategy*

##### 1. Requirements for RACM/RACT

CAA section 172(c)(1) requires that each attainment plan “provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology), and shall provide for attainment of the national primary ambient air quality standards.” EPA defines RACM as measures that a State finds are both reasonably available and contribute to attainment as expeditiously as practicable in its nonattainment area. Thus, what constitutes RACM/RACT in a PM<sub>2.5</sub> attainment plan is closely tied to that plan's expeditious attainment demonstration. 40 CFR 51.1010; 72 FR 20586 at 20612. States are required to evaluate RACM/RACT for direct PM<sub>2.5</sub> and all of its attainment plan precursors. 40 CFR 51.1002(c).

For PM<sub>2.5</sub> attainment plans, EPA is requiring a combined approach to RACM and RACT under subpart 1 of

Part D of the CAA. Subpart 1, unlike subparts 2 and 4, does not identify specific source categories for which EPA must issue control technology documents or guidelines, or identify specific source categories for State and EPA evaluation during attainment plan development. 72 FR 20586, at 20610. Rather, under subpart 1, EPA considers RACT to be part of an area's overall RACM obligation. Because of the variable nature of the PM<sub>2.5</sub> problem in different nonattainment areas, which may require States to develop attainment plans that address widely disparate circumstances, EPA determined that states should have flexibility with respect to RACT and RACM controls but also that in areas needing significant emission reductions to attain the standards, RACT/RACM controls on smaller sources may be necessary to reach attainment as expeditiously as practicable. 72 FR 20586, at 20612, 20615. Thus, under the PM<sub>2.5</sub> implementation rule, RACT and RACM are those reasonably available measures that contribute to attainment as expeditiously as practicable in the specific nonattainment area. 40 CFR 51.1010; 72 FR 20586, at 20612. Specifically, the PM<sub>2.5</sub> implementation rule requires that attainment plans include the list of measures the state considered and information sufficient to show that a state met all requirements for the determination of what constitutes RACM/RACT in the specific nonattainment area. 40 CFR 51.1010(a). In addition, the rule requires that the state, in determining whether a particular emissions reduction measure or set of measures must be adopted as

<sup>12</sup> Electronic mail from Kathy Hsiao, SCAQMD to Wienke Tax, EPA Region 9, RE: NH<sub>3</sub> numbers for SCAB, dated October 29, 2010.

RACM/RACT, consider the cumulative impact of implementing the available measures and adopt as RACM/RACT any potential measures that are reasonably available considering technological and economic feasibility if, considered collectively, they would advance the attainment date by one year or more. Any measures that are necessary to meet these requirements that are not already either federally promulgated, part of the state's SIP, or otherwise creditable in SIPs must be submitted in enforceable form as part of a state's attainment plan for the area. 72 FR 20586, at 20614.

A more comprehensive discussion of the RACM/RACT requirement for PM<sub>2.5</sub> attainment plans and EPA's guidance for it can be found in the PM<sub>2.5</sub> implementation rule preamble at 20609–20633 and in section II.D. of the TSD for this proposal.

## 2. RACM/RACT Demonstration in the SIP

CARB and the District have rulemaking processes for development, adoption and implementation of RACM/RACT that have been in place for decades. Many of the measures being implemented in California and the South Coast nonattainment area are the most stringent in the nation and are often adopted for implementation in other areas. In addition, the State and District have adopted new measures since 2002, the base year for the South Coast 2007 AQMP, and included enforceable commitments for measures that are scheduled to be adopted in the future. The RACM/RACT analysis for the South Coast 2007 AQMP includes an evaluation of the State's, District's, and the Southern California Association of Governments' (SCAG's) new stationary, area and mobile sources measures that have been adopted since the base year and those that are being committed to for adoption in the future. See CARB Staff Report, "Proposed 2007 State Implementation Plan for the South Coast Air Basin—PM<sub>2.5</sub> Annual Average and 8-Hour ozone National Ambient Air Quality Standards" (September 21, 2007); South Coast 2007 AQMP, Appendix VI; and 2007 State Strategy, Appendix G. A more detailed discussion of the District, State and SCAG measures is provided below.

### a. District's RACM/RACT Analysis and Adopted Control Strategy

The District's RACM/RACT analysis, which focuses on stationary and area source controls, is described in Chapter 6 and Appendix VI of the South Coast 2007 AQMP.

Since the 1970s, the District has adopted stationary source control rules that have resulted in significant improvement of air quality in the South Coast nonattainment area. When command and control rules were no longer within the limitations of economic efficiency, the District began using economic incentive approaches with programs such as the Regional Clean Air Incentives Market (RECLAIM) and the Carl Moyer program.<sup>13</sup> While the District still relies on command and control regulations, the District's control strategies are now supplemented by market incentive and compliance flexibility approaches where appropriate. These regulations and strategies have yielded significant emissions reductions from sources under the District's jurisdiction. In developing the South Coast 2007 AQMP, the District conducted a process to identify RACM for the South Coast that involved public meetings to solicit input, evaluation of EPA suggested RACM and RACT, and evaluation of other air agencies' regulations. See South Coast 2007 AQMP, Appendix VI.

To determine which measures would be feasible for the South Coast, the District looked at measures implemented in other nonattainment areas' plans (including the San Joaquin Valley, the San Francisco Bay Area, Sacramento, Ventura, Dallas-Fort Worth, the Houston-Galveston area, and by the Lake Michigan Air Directors Consortium, or LADCO), and held meetings with CARB, technical experts, local government representatives, and the public during development of the South Coast 2007 AQMP. The District sponsored an AQMP summit, which generated 200 potential control measures. In addition, the District reviewed the list of control measures in EPA's PM<sub>2.5</sub> implementation rule. The District also reevaluated all 82 District rules and regulations. The District then screened the identified measures and rejected those that affected few or no sources in the South Coast, had already been adopted as rules, or were in the process of being adopted. The remaining measures were evaluated using baseline inventories, available control technologies, and potential emission

reductions as well as whether the measure could be implemented on a schedule that would contribute to attainment of the PM<sub>2.5</sub> standard assuming a 2015 deadline. South Coast 2007 AQMP, Appendix VI.

In general, EPA believes that the District's current rules and regulations are equivalent to or more stringent with respect to emissions of PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors than those developed by other air districts, with a few exceptions where improvements are possible. The District is exploring several options for reducing emissions further. These include the feasibility of lowering emission limits and increasing levels of control in order to promote cleaner stationary source technologies; lowering the VOC content of coatings and solvents; establishing standards and test methods for generic equipment and lowering release or leak thresholds; improving leak detection, repair, inspection and maintenance; and adding best management practices to rules.

Based on its RACM/RACT evaluation for stationary and area sources under its jurisdiction, the District developed 37 stationary source control measures that contained all measures included in other districts' AQMPs, as well as some new innovative measures. The District determined that the few available measures that District staff did not include would not advance the attainment date or contribute to RFP due to the insignificant or unquantifiable emissions reductions they would potentially generate. Since submittal of the AQMP in 2007, the District has completed action on the majority of these rules and submitted them to EPA for approval into the SIP.

From October 2002 through June 2006, the District adopted approximately 17 rules to address its commitment to achieve the reductions committed to in the 2003 AQMP for the South Coast. These rules included controls on VOC emissions from refineries and chemical plants, co-composting operations, architectural coatings, solvent cleaning operations, oil and gas production wells, and livestock waste. Many of the adopted rules achieved more estimated reductions in VOC, NO<sub>x</sub> and SO<sub>x</sub> than were expected in the 2003 AQMP. A summary of these rules, which are included in the baseline emissions estimates for the South Coast 2007 AQMP, is provided in Table 1–2 of the South Coast 2007 AQMP. See South Coast 2007 AQMP, Chapter 1, Table 1–2 and Chapter 4, page 4–6, and Table B–1 in Appendix B of the TSD for today's action.

<sup>13</sup> The Carl Moyer Memorial Air Quality Standards Attainment Program ("Carl Moyer Program") provides incentive grants for engines, equipment and other sources of pollution that are cleaner than required, providing early or extra emission reductions. Eligible projects include cleaner on-road, off-road, marine, locomotive and stationary agricultural pump engines. The program achieves near-term reductions in emissions of NO<sub>x</sub>, PM, and VOC or reactive organic gas (ROG) which are necessary for California to meet its clean air commitments under the SIP.

In addition to the rules adopted for 2003 AQMP, the District has also made new commitments in its South Coast 2007 AQMP to achieve further reductions from VOC, NO<sub>x</sub>, SO<sub>x</sub> and direct PM<sub>2.5</sub> sources in the South Coast Area. The District committed to adopt and submit measures that will achieve the following additional emissions reductions: 32 tpd NO<sub>x</sub>, 10 tpd VOC, 4 tpd direct PM<sub>2.5</sub> and 3 tpd SO<sub>x</sub>.<sup>14</sup> See CARB Staff Report on the South Coast 2007 AQMP, page ES-2 to ES-4. The District expects to meet its emissions reductions commitments for each of the pollutants by adopting new control measures and programs found in the Table 4-2A of the South Coast 2007

<sup>14</sup> CARB uses the term ROG (reactive organic gases) where we use the term VOC. We will use the term "VOC" in this notice to refer to both ROG and VOC.

AQMP (See South Coast 2007 AQMP, page 4-10 and CARB Staff Report on South Coast 2007 AQMP, p. 18) and from additional actions summarized in the CARB Staff Report on the South Coast 2007 AQMP (See CARB Staff Report on South Coast 2007 AQMP, p. 17). The new control measures and additional actions are estimated to achieve more of the District's NO<sub>x</sub> and VOC emission reduction commitments. They include new rules to regulate lubricants, consumer products, non-RECLAIM ovens, dryers and furnaces, space heaters, facility modernizations, livestock waste, residential wood burning, commercial cooking, and continuation of the Carl Moyer program. The South Coast 2007 AQMP also identifies 22 measures (beyond the new control measures and additional actions just discussed) for further review which

may also yield additional reductions towards the District's commitments. As discussed above, the District's commitment is to achieve the estimated total tonnage reductions of each pollutant because specific control measures and actions as adopted may provide more or less reductions than estimated in the South Coast 2007 AQMP.

Finally, EPA notes that since the adoption of the South Coast 2007 AQMP, the District has already adopted and submitted several new rules that help fulfill the District's enforceable commitments for additional emission reductions of NO<sub>x</sub>, VOC, direct PM<sub>2.5</sub> and SO<sub>x</sub> in the South Coast area. Tables 2 and 3 below summarize the status of these new rules.

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Table 2. Status of District Short- and Intermediate-Term Control Measures Credited in South Coast 2007 AQMP Attainment Demonstration

Control measure	Rule No.	Title	Emissions Reduction Commitment in South Coast 2007 AQMP	Emissions Reductions Achieved <sup>a</sup>
BCM-03	445	Woodburning fireplaces and wood stoves	1.0 tpd PM <sub>2.5</sub>	1.0 tpd PM <sub>2.5</sub>
CTS-01	1144	Vanishing oils and rust inhibitors	1.9 tpd VOC	2.7 tpd VOC
CTS-03	1143	Consumer Paint Thinners and Multi-Purpose Solvents	2.1 tpd VOC	Not yet submitted
CTS-04	1145	Plastic, Rubber, Leather and Glass Coatings		negligible
CMB-01	1147	NO <sub>x</sub> reductions from miscellaneous sources	3.5 tpd NO <sub>x</sub>	6.2 tpd NO <sub>x</sub>
CMB-02	2002	Further SO <sub>x</sub> reductions from RECLAIM	3.0 tpd SO <sub>x</sub>	
FUG - 04	1149	Storage Tank and Pipeline Cleaning and Degassing	None	1.3 tpd VOC
CMB-03	1111	Further NO <sub>x</sub> reductions from space heaters	0.8 tpd NO <sub>x</sub>	0.1 tpd NO <sub>x</sub>
MCS-01	1110.2	Liquid and gaseous fuels - stationary ICES		0.4 tpd NO <sub>x</sub> 0.3 tpd VOC
	1146	NO <sub>x</sub> from industrial, institutional, & commercial boilers, steam generators, and process heaters	1.6 tpd NO <sub>x</sub> 0.4 tpd PM <sub>2.5</sub> 2.0 tpd VOC	
	1146.1	NO <sub>x</sub> from small ind, inst, & comm'l boilers, steam gens, and proc. Htrs		
MCS-05	1127	Livestock waste	0.8 tpd VOC	
FLX-02		Refinery pilot program	0.7 tpd VOC, 0.4 tpd PM <sub>2.5</sub>	
MOB-04 <sup>b</sup>		Carl Moyer funds	7.5 tpd NO <sub>x</sub> , 0.2 tpd PM <sub>2.5</sub>	7.5 tpd NO <sub>x</sub> + 3 tpd NO <sub>x</sub> 0.2 tpd PM <sub>2.5</sub>
MOB-05	2251	AB923 LDV high emitter program	0.8 tpd VOC, 0.4 tpd NO <sub>x</sub>	
MOB-06		AB923 MDV high emitter program	0.5 tpd VOC, 0.5 tpd NO <sub>x</sub>	
Total achieved PM <sub>2.5</sub> reductions				1.2
Total achieved VOC reductions				4.3
Total achieved NO <sub>x</sub> reductions				14.5

<sup>a</sup> From SCAMQD Rule Evaluation Forms.<sup>b</sup> The 2007 State Strategy credits the South Coast Moyer program with an additional 3 tpd of NO<sub>x</sub>. (See 2007 State Strategy, page 17).

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TABLE 3—SUBMITTAL AND APPROVAL STATUS OF DISTRICT RULES IN THE 2007 PM<sub>2.5</sub> PLAN

Rule 445—Woodburning fireplaces and wood stoves .....	SIP-approved .....	74 FR 27716, 6/11/09.
Rule 1144—Vanishing oils and rust inhibitors .....	SIP-approved .....	75 FR 40726, 07/14/10.
Rule 1143—Consumer Paint Thinners and Multi-Purpose Solvents .....	Not yet submitted—adopted 07/09/10.	New rule; no previous version approved into the SIP; District is revising rule.
Rule 1145—Plastic, Rubber, Leather and Glass Coatings .....	SIP-approved .....	75 FR 40726, 07/14/10.
Rule 1147—NO <sub>x</sub> reductions from miscellaneous sources .....	SIP-approved .....	75 FR 46845, 08/04/10.
Rule 2002—Further SO <sub>x</sub> reductions from RECLAIM .....	Not yet adopted .....	Most recent approval 08/29/06, 71 FR 51120.
Rule 1111—Further NO <sub>x</sub> reductions from space heaters .....	SIP-approved .....	75 FR 46845, 08/04/10.
Rule 1110.2—Liquid and gaseous fuels—stationary ICES .....	SIP-approved .....	74 FR 18995, 4/27/09.
Rule 1146—NO <sub>x</sub> from industrial, institutional, commercial boilers, steam generators, and process heaters.	Submitted .....	Most recent approval—04/08/02, 67 FR 16640.
Rule 1146.1—NO <sub>x</sub> from small industrial, institutional, commercial boilers, steam generators, and process heaters.	Submitted .....	Most recent approval—09/06/95, 60 FR 46220.
Rule 1127—Livestock Waste .....	Submitted to EPA on 10/05/06 .....	Found complete on 10/25/06.
Refinery Pilot Program .....	Not yet adopted .....	N/A.

TABLE 3—SUBMITTAL AND APPROVAL STATUS OF DISTRICT RULES IN THE 2007 PM<sub>2.5</sub> PLAN—Continued

Rule 2301—Indirect Source Review .....	Not yet adopted .....	N/A.
Carl Moyer program .....	No rule associated with this measure.	Ongoing.
AB923 Light duty vehicle high emitter program .....	No rule associated with this measure.	N/A.
AB923 Light duty vehicle high emitter program .....	No rule associated with this measure.	N/A.

#### b. CARB's RACM Analysis and Adopted Control Strategy

Source categories for which CARB has primary responsibility for reducing emissions in California include most new and existing on- and off-road engines and vehicles, motor vehicle fuels, and consumer products. In addition, California has unique authority under CAA section 209 (subject to a waiver by EPA) to adopt and implement new emission standards for many categories of on-road vehicles and engines, and new and in-use off-road vehicles and engines.

Given the need for significant emissions reductions from mobile and area sources to meet the NAAQS in California nonattainment areas, the State of California has been a leader in the development of some of the most stringent control measures nationwide for on-road and off-road mobile sources and the fuels that power them. These standards have reduced new car emissions by 99 percent and new truck emissions by 90 percent from uncontrolled levels. 2007 State Strategy, p. 37. The State is also working with

EPA on goods movement activities and is implementing programs to reduce emissions from ship auxiliary engines, locomotives, harbor craft and new cargo handling equipment. In addition, the State has standards for lawn and garden equipment, recreational vehicles and boats, and other off-road sources that require newly manufactured equipment to be 80–98% cleaner than their uncontrolled counterparts. *Id.* Finally, the State has adopted many measures that focus on achieving reductions from in-use mobile sources that include more stringent inspection and maintenance (I/M) or “Smog Check” requirements, truck and bus idling restrictions, and various incentive programs. Since 1994 alone, the State has taken more than 45 rulemaking actions and achieved most of the emissions reductions needed for attainment in the State's nonattainment areas. *See* 2007 State Strategy, pp. 36–40. As is noted in the 2007 State Strategy, EPA has approved California's mobile source program as representing best available control measures. *See* 2007 State Strategy, Appendix G, 69 FR 5412 (February 4, 2004), 69 FR 30006 (May 26, 2004) (proposed and final

approval of San Joaquin Valley PM<sub>10</sub> plan).

CARB developed its proposed 2007 State Strategy after an extensive public consultation process to identify potential SIP measures.<sup>15</sup> From this process, CARB identified and committed to propose 15 new defined measures. These measures focus on cleaning up the in-use fleet as well as increasing the stringency of emissions standards for a number of engine categories, fuels, and consumer products. Many, if not most, of these measures are being proposed for adoption for the first time anywhere in the nation. They build on CARB's already comprehensive program described above that addresses emissions from all types of mobile sources and consumer products, through both regulations and incentive programs. *See* Appendix A of the TSD. Table 4 below lists the new defined measures in the 2007 State Strategy that include one measure each from the California Bureau of Automotive Repair and the California Department of Pesticide Regulation.

TABLE 4—2007 STATE STRATEGY DEFINED MEASURES SCHEDULED FOR CONSIDERATION AND CURRENT STATUS

Defined state measure	Primary area (SC and/or SJV)	Adoption year	Current status
Smog Check Improvements .....	Both .....	2007–2008 .....	Elements approved 75 FR 38023 (July 1, 2010).
Expanded Vehicle Retirement .....	Both .....	2008–2014 .....	Adopted CARB June 2009; Bureau of Automotive Repair September 2010.
Revisions to Reformulated Gasoline Program ...	Both .....	2007 .....	Approved, <i>See</i> 75 FR 26653 (May 2, 2010).
Cleaner In-use Heavy Duty Trucks .....	Both .....	2008 .....	Adopted 2008, pending revisions.
Auxiliary Ship Cold Ironing and Other Clean Technologies.	SC .....	2007–2008 .....	Adopted December 2007.
Cleaner Main Ship Engines and Fuels .....	SC .....	Fuel: 2007, Engines: 2009.	Adopted July 2007.
Port Truck Modernization .....	SC .....	2007–2008 .....	Adopted December 2007 and December 2008.
Accelerated Introduction of Cleaner Locomotives.	Both .....	2007–2008 .....	In progress.
Clean Up Existing Harbor Crafts .....	SC .....	2007 .....	Adopted November 2007, revised June 2010.
Cleaner In-Use Off-Road Engines .....	Both .....	2007 .....	Adopted 2007, pending revisions.
Cleaner In-Use Agricultural Equipment .....	SJV .....	2009 .....	In progress using incentive funds.
New Emissions Standards for Recreational Boats.	Both .....	2009–2010 .....	Partial adoption, 2008; additional regulation in public review.

<sup>15</sup> More information on this public process including presentations from the workshops and

symposium that preceded the adoption of the 2007

State Strategy can be found at <http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm>.

TABLE 4—2007 STATE STRATEGY DEFINED MEASURES SCHEDULED FOR CONSIDERATION AND CURRENT STATUS—Continued

Defined state measure	Primary area (SC and/or SJV)	Adoption year	Current status
Expanded Off-Road Recreational Vehicle Emissions Standards.	Both .....	By 2010 .....	Adopted November 2008.
Enhanced Vapor Recovery for Above Ground Storage Tanks.	Both .....	2007 .....	Adopted June 2007.
Additional Evaporative Emissions Standards .....	Both .....	By 2010 .....	Partial adoption, 2008.
Consumer Products Program (I & II) .....	Both .....	2008 & 2010–2012 .....	Phase I—Approved 74 FR 57074 (November 4, 2009).
Department of Pesticide Regulation .....	SJV .....	2008 .....	Adopted 2008, amended 2009.

SC = South Coast nonattainment area; SJV = San Joaquin Valley. Source: 2009 State Strategy Status Report, p. 23 (footnotes in original not included).

Appendix A of the TSD includes a list of all measures adopted by CARB between 1990 and the beginning of 2007. These measures, reductions from which are reflected in the South Coast 2007 AQMP's baseline inventories, fall into two categories: Measures that are subject to a waiver of Federal preemption under CAA section 209 ("section 209 waiver measures" or "waiver measures") and those for which the State is not required to obtain a waiver ("non-waiver measures"). Emissions reductions from waiver measures are fully creditable in attainment and RFP demonstrations and may be used to meet other CAA requirements, such as contingency measures. See EPA's proposed approval of the San Joaquin Valley 1-hour ozone plan at 74 FR 33933, 33938 (July 14, 2009) and final approval at 75 FR 10420 (March 8, 2010). The State's baseline non-waiver measures have generally all been approved by EPA into the SIP and

as such are fully creditable for meeting CAA requirements.

In addition to the State's commitments to propose defined new measures, the 2007 State Strategy includes enforceable commitments for direct PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and SO<sub>x</sub> emissions reductions from mobile source categories that are that are crucial for attainment of the PM<sub>2.5</sub> NAAQS in the South Coast nonattainment area. For the South Coast nonattainment area, the revised 2007 State Strategy includes State commitments to achieve 152 tpd of NO<sub>x</sub>, 46 tpd of VOC, 9 tpd of direct PM<sub>2.5</sub>, and 20 tpd of SO<sub>x</sub> (See 2007 State Strategy, p. 63 and CARB Resolution 07–28, Attachment B, p. 6). The 2007 State Strategy indicates that the State expects to achieve these emission reductions in the South Coast nonattainment area by the projected attainment year of 2014 from the measures listed in Table 4 or other

similar measures. In the 2007 State Strategy, CARB provides an estimated emissions reduction for each measure to show that, when considered together, these measures can meet the total commitment. CARB states, however, that its enforceable commitment is to achieve the aggregate emissions reductions for each pollutant by the given dates and not for a specific level of reductions from any specific measure. See 2007 State Strategy, p. 58. A summary of the estimates from the proposed measures is provided in Table 5 below.

As mentioned above, CARB's commitment is also to propose specific new measures that are identified and defined in the 2007 Strategy State. See 2007 State Strategy, pp. 64–65 and 2009 State Strategy revisions, pp. 22–23. Table 5 below lists these defined measures. As shown in this table, the State has adopted many of the measures.

TABLE 5—EXPECTED EMISSIONS REDUCTIONS FROM DEFINED MEASURES IN THE 2007 STATE STRATEGY FOR THE SOUTH COAST (2014 TONS PER DAY)

Measure	2014 NO <sub>x</sub>	2014 VOC	2014 Direct PM <sub>2.5</sub>	2014 SO <sub>x</sub>
Smog Check Improvements (BAR) [partial] .....	2.0	4.1	.....	.....
Modifications to Reformulated Gasoline Program .....	.....	4.4	.....	.....
Cleaner In-Use Heavy-Duty Trucks .....	59.7	5.0	3.5	.....
Ship Auxiliary Engine Cold Ironing & Clean Technology .....	25.4	0.1	0.5	0.3
Cleaner Main Ship Engines and Fuel [fuel portion only] .....	1.3	.....	1.9	17.0
Clean Up Existing Harbor Craft .....	2.4	0.1	0.1	.....
Cleaner In-Use Off-Road Equipment (> 25hp) .....	10.5	2.7	2.6	.....
Consumer Products Program [partial] .....	.....	1.8	.....	.....
Totals .....	101.3	18.2	8.6	17.3

Source: 2009 CARB Staff Report on the State Strategy, p. 5. Only defined measures with reductions in the South Coast nonattainment area are shown here.

#### c. The Local Jurisdiction's RACM Analysis

The local jurisdiction's RACM analysis was conducted by the metropolitan planning organization (MPO) for the South Coast region, the

Southern California Association of Governments (SCAG). This analysis, which focused on transportation control measures (TCMs), and its results are described in Appendix IV–C of the South Coast 2007 AQMP. The TCMs in the South Coast 2007 AQMP are derived

from TCM projects in the 2006 SCAG Regional Transportation Improvement Program (RTIP). This evaluation, described beginning on page 49 of Appendix IV–C of the South Coast 2007 AQMP, resulted in extensive local government commitments to implement

programs to reduce auto travel and improve traffic flow. South Coast 2007 AQMP page 6–6 and Appendix IV–C. SCAG also provided reasoned justifications for any measures that it did not adopt. Attachment A to Appendix IV–C contains an extensive list of TCMs in process and newly programmed TCMs. The enforceable commitment from SCAG and the transportation agencies was to fund and implement projects in the first two years of the 2006 Regional Transportation Improvement Program (RTIP).

### 3. Proposed Actions on RACM/RACT and Adopted Control Strategy

Under the PM<sub>2.5</sub> implementation rule, RACM/RACT are the set of measures necessary for expeditious attainment. The measures must address emissions of PM<sub>2.5</sub> and all PM<sub>2.5</sub> attainment plan precursors that are necessary to result in such expeditious attainment. In order for a PM<sub>2.5</sub> plan to demonstrate that it provides for RACM/RACT, it must also demonstrate that it provides for expeditious attainment. 72 FR 20586, p. 20612–20623. As discussed further below in section D.5., we are proposing to disapprove the PM<sub>2.5</sub> attainment demonstration for the South Coast nonattainment area because it relies too heavily on commitments to reduce emissions in lieu of fully adopted measures. Absent an approvable attainment demonstration, we are unable to propose to approve and must instead propose to disapprove the AQMP's RACM/RACT demonstration. It appears, however, that the District, State and local jurisdictions have identified and otherwise provided for the implementation of a comprehensive set of measures that are among the most stringent in the nation and, should the State correct the deficiencies in the attainment demonstration, we expect to be able to propose to approve the plan's RACM/RACT demonstration.

Because they will strengthen the California SIP, we are proposing to approve the District's commitments to the adoption and implementation schedule for specific control measures given in Table 7–3 in the South Coast 2007 AQMP, to the extent that these commitments have not yet been fulfilled, and to achieve specific aggregate emissions reductions of direct PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and SO<sub>x</sub> by specific years as given in Table 4–10 of the South Coast 2007 AQMP.

We are also proposing to approve, as a SIP strengthening measure, CARB's commitments to propose certain defined measures, as given on page 23 of the 2009 State Strategy Status Report, to achieve aggregate emissions reductions

of 152 tpd NO<sub>x</sub>, 46 tpd VOC, 9 tpd PM<sub>2.5</sub>, and 20 tpd SO<sub>x</sub> in the South Coast by 2014.

### D. Attainment Demonstration

#### 1. Requirements for Attainment Demonstrations

CAA section 172 requires a State to submit a plan for each of its nonattainment areas that demonstrates attainment of the applicable ambient air quality standard as expeditiously as practicable but no later than the specified attainment date. Under the PM<sub>2.5</sub> implementation rule, this demonstration should consist of four parts:

- (1) Technical analyses that locate, identify, and quantify sources of emissions that are contributing to violations of the PM<sub>2.5</sub> NAAQS;
- (2) analyses of future year emissions reductions and air quality improvement resulting from already-adopted national, State, and local programs and from potential new State and local measures to meet the RACT, RACM, and RFP requirements in the area;
- (3) adopted emissions reduction measures with schedules for implementation; and
- (4) contingency measures required under section 172(c)(9) of the CAA.

See 40 CFR 51.1007; 72 FR 20586, at 20605.

The requirements for the first two parts are described in the sections on emissions inventories and RACM/RACT above and in the sections on air quality modeling, PM<sub>2.5</sub> precursors, extension of attainment date, and attainment demonstrations that follow immediately below. Requirements for the third and fourth parts are described in the sections on the control strategy and the contingency measures, respectively.

#### 2. Air Quality Modeling in the South Coast 2007 AQMP

The procedures for modeling attainment of the PM<sub>2.5</sub> NAAQS as part of an attainment SIP are contained in EPA's "Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for the 8-Hour Ozone and PM<sub>2.5</sub> NAAQS and Regional Haze." <sup>16</sup> A brief description of the modeling used to support South Coast's attainment demonstration follows. For more detailed information about the modeling, please refer to the TSD associated with this rulemaking, which can be found in the docket for today's action.

<sup>16</sup> The guidance is available at [http://www.epa.gov/ttn/scram/guidance\\_sip.htm](http://www.epa.gov/ttn/scram/guidance_sip.htm) and in the docket for today's action.

Air quality modeling is used to establish emission attainment targets, a combination of emissions of PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors that the nonattainment area can accommodate without exceeding the NAAQS, and to assess whether the proposed control strategy will result in attainment of the NAAQS by the applicable attainment date. Air quality modeling is performed for a base year and compared to air quality monitoring data to determine model performance. Once the performance is determined to be acceptable, future year emission inventory changes are simulated to determine the relationship between emission reductions and changes in ambient air quality throughout the nonattainment area.

The attainment demonstration for the South Coast nonattainment area is based on the CAMx model using the "one atmosphere" approach comprised of the carbon bond IV (CB–IV) gas phased chemistry and a static two-mode particle size aerosol.<sup>17</sup> CAMx annual average PM<sub>2.5</sub> modeling simulations were generated for 2005 and 2014 baseline emissions scenarios and for a 2014 controlled emissions scenario by the District. District staff compared the base year model output to speciated particulate data measured in 2005 as part of the Multiple Air Toxics III (MATES–III) program. Model specifications, such as boundary conditions, domain size, and resolution, meet EPA criteria and are discussed in the TSD. Model performance for total mass (the sum of specific individual species), as well as specific individual species, is adequate and is discussed in the TSD.

The District's attainment analysis follows EPA's guideline technique of applying component-specific relative response factors (RRF) to monitored data throughout the South Coast nonattainment area. A RRF is the ratio of the model's future to current (baseline) predictions at a monitor. Future PM<sub>2.5</sub> concentrations are estimated at existing monitoring sites by multiplying a modeled RRF at the grid cell locations of each monitor by the observation-based, monitor-specific, "baseline" design value. A separate RRF is calculated for each of the PM<sub>2.5</sub> precursors. Future PM<sub>2.5</sub> design values were estimated by District staff at existing monitoring sites throughout the South Coast nonattainment area by multiplying modeled RRFs for each

<sup>17</sup> CAMx is the Comprehensive Air Quality Model with extensions, an Eulerian photochemical dispersion model that allows for integrated "one-atmosphere" assessments of gaseous and particulate air pollution (ozone, PM<sub>2.5</sub>, PM<sub>10</sub>, air toxics) over many scales ranging from sub-urban to continental.

monitor times the observed “component-specific design value”. The future PM<sub>2.5</sub> design values were then compared to the annual and 24-hour NAAQS to demonstrate attainment at each site. The maximum 2014 predicted 24-hour PM<sub>2.5</sub> design value at any site is 56.6 µg/m<sup>3</sup>; this is lower than the 24-hour PM<sub>2.5</sub> NAAQS at 65 µg/m<sup>3</sup>. The maximum 2014 predicted PM<sub>2.5</sub> annual design value is 15.0 µg/m<sup>3</sup>; a predicted design value of 15.04 µg/m<sup>3</sup> or lower is considered modeled attainment of the annual standard.

EPA guidance also recommends the use of supplemental data analyses to support the air quality modeling. The District used air quality trends and emission inventory trends as “weight of evidence” to support the air quality modeling for the attainment demonstration.

The District used its air quality modeling to establish emissions reduction targets to be used in developing the control strategy for the nonattainment SIP. Once a proposed control strategy was developed, the District then used the photochemical modeling to verify that the projected emissions reductions would result in attainment of the 1997 PM<sub>2.5</sub> standards throughout the South Coast nonattainment area by the target attainment date of 2014. The estimated carrying capacities for the South Coast nonattainment area are included in Table 7.<sup>18 19</sup>

We are proposing to approve the air quality modeling demonstration in the South Coast 2007 AQMP as meeting the requirements of the CAA and EPA guidance. We provide further discussion in the TSD.

**TABLE 6—EMISSIONS CARRYING CAPACITY ESTIMATES FOR THE SOUTH COAST NONATTAINMENT AREA FOR PM<sub>2.5</sub> ATTAINMENT**

[Tons/day, based on planning inventory]

PM <sub>2.5</sub>	NO <sub>x</sub>	SO <sub>x</sub>	VOC
87	454	19	469

<sup>18</sup> “Carrying capacity” is defined as the maximum level of emissions that enable the attainment and maintenance of an ambient air quality standard for a pollutant. (See South Coast 2007 AQMP, page 5–27.)

<sup>19</sup> The CARB Staff Report for the South Coast 2007 AQMP presents a slightly different emissions carrying capacity which relies more heavily on reductions of primary PM<sub>2.5</sub> and less heavily on reductions of precursors to PM<sub>2.5</sub>. The Staff Report’s emission carrying capacity estimates are PM<sub>2.5</sub>—86 tons/day, NO<sub>x</sub>—460 tons/day, SO<sub>x</sub>—20 tons/day, and VOC—474 tons/day (See CARB Staff Report on the South Coast AQMP, page ES–3).

### 3. PM<sub>2.5</sub> Precursors Addressed in the South Coast 2007 AQMP

EPA recognizes NO<sub>x</sub>, SO<sub>2</sub>, VOCs, and ammonia as the main precursor gases associated with the formation of secondary PM<sub>2.5</sub> in the ambient air. These gas-phase PM<sub>2.5</sub> precursors undergo chemical reactions in the atmosphere to form secondary particulate matter. Formation of secondary PM<sub>2.5</sub> depends on numerous factors including the concentrations of precursors; the concentrations of other gaseous reactive species; atmospheric conditions including solar radiation, temperature, and relative humidity; and the interactions of precursors with preexisting particles and with cloud or fog droplets. 72 FR 20586, at 20589.

As discussed previously, a state must submit emissions inventories for each of the four PM<sub>2.5</sub> precursor pollutants. 72 FR 20586, at 20589 and 40 CFR § 51.1008(a)(1). However, the overall contribution of different precursors to PM<sub>2.5</sub> formation and the effectiveness of alternative potential control measures will vary by area. Thus, the precursors that a state should regulate to attain the PM<sub>2.5</sub> NAAQS could also vary to some extent from area to area. 72 FR 20586, at 20589.

In the PM<sub>2.5</sub> implementation rule, EPA did not make a finding that all potential PM<sub>2.5</sub> precursors must be controlled in each specific nonattainment area. See 72 FR 20586, at 20589. Instead, for the reasons explained in the rule, a state must evaluate control measures for sources of SO<sub>2</sub> in addition to sources of direct PM<sub>2.5</sub> in all nonattainment areas. 40 CFR § 51.1002(c) and (c)(1). A state must also evaluate control measures for sources of NO<sub>x</sub> unless the State and/or EPA determine that control of NO<sub>x</sub> emissions would not significantly reduce PM<sub>2.5</sub> concentrations in the specific nonattainment area. Id. at 40 CFR 51.1002(c)(2). EPA has determined in the PM<sub>2.5</sub> implementation rule that states do not need to address VOC and ammonia in an area unless the state and/or EPA determine that controls on such sources would significantly contribute to reducing PM<sub>2.5</sub> concentrations in the nonattainment area. Id. at 40 CFR 51.1002(c)(3) and (4). “Significantly contributes” in this context means that a significant reduction in emissions of the precursor from sources in the area would be projected to provide a significant reduction in PM<sub>2.5</sub> concentrations in the area. 72 FR 20586, at 20590.

In the South Coast nonattainment area, PM<sub>2.5</sub> can be directly emitted, such as from road dust, diesel soot,

combustion products, and other sources (“primary particles”), or formed through atmospheric chemical reactions of precursor chemicals (“secondary particles”). Examples of secondary particles include sulfates, nitrates, and complex carbon compounds formed from reactions of NO<sub>x</sub>, SO<sub>x</sub>, VOCs, and ammonia. The attainment demonstration for the South Coast PM<sub>2.5</sub> nonattainment area addresses ammonium nitrate and ammonium sulfate because they represent a dominant fraction of PM<sub>2.5</sub> components in this area and are formed through secondary reactions of the precursors NO<sub>x</sub>, SO<sub>x</sub>, VOC and ammonia. The District’s analysis indicates that SO<sub>x</sub> reductions followed by directly-emitted PM<sub>2.5</sub> and NO<sub>x</sub> reductions provide the greatest ambient PM<sub>2.5</sub> reductions. VOC reductions can also contribute to improving ambient PM<sub>2.5</sub> concentrations and will occur concurrently as a result of District’s 8-hour ozone strategy.<sup>20</sup> Starting in 2011, the PM<sub>2.5</sub> implementation rule requires that states must also address condensable particulate matter (CPM), including estimates of CPM in emissions inventories, modeling, and control strategies.

### 4. Extension of the Attainment Date

CAA section 172(a)(2) provides that an area’s attainment date “shall be the date by which attainment can be achieved as expeditiously as practicable, but no later than 5 years from the date such area was designated nonattainment \* \* \*, except that the Administrator may extend the attainment date to the extent the Administrator determines appropriate, for a period no greater than 10 years from the date of designation as nonattainment considering the severity of nonattainment and the availability and feasibility of pollution control measures.”

Because the effective date of designations for the 1997 PM<sub>2.5</sub> standards was April 5, 2005 (70 FR 944), the initial attainment date for PM<sub>2.5</sub> nonattainment areas is as expeditiously as practicable but not later than April 5, 2010. For any areas that are granted a full five-year attainment date extension under section 172, the attainment date would be no later than April 5, 2015.

Section 51.1004 of the PM<sub>2.5</sub> implementation rule addresses the attainment date requirement. Section 51.1004(b) requires a State to submit an

<sup>20</sup> See page 5–17 of Chapter 5 of the South Coast 2007 AQMP. We approved the South Coast RACT SIP on December 18, 2008 (See 73 FR 76947) as complying with the relevant CAA requirements for RACT SIPs for 8-hour ozone.

attainment demonstration justifying its proposed attainment date and provides that EPA will approve an attainment date when we approve that demonstration. Thus, the selection of the attainment date is dependent upon a demonstration showing expeditious attainment, and likewise dependent upon proper evaluation of what constitutes RACM/RACT level controls in the area.

States that request an extension of the attainment date under CAA section 172(a)(2) must provide sufficient information to show that attainment by April 5, 2010 is impracticable due to the severity of the nonattainment problem in the area and the lack of available and feasible control measures to provide for faster attainment. 40 CFR 51.1004(b). States must also demonstrate that all RACM and RACT for the area are being implemented to bring about attainment of the standard by the most expeditious alternative date practicable for the area. 72 FR 20586, at 20601. Thus, the proper evaluation of RACM/RACT controls is an integral part of justifying an extension of the attainment date.

For urban areas nationwide, the South Coast nonattainment area has the second highest average annual mean PM<sub>2.5</sub> concentration (ranking only behind the San Joaquin Valley in California for the 1997 PM<sub>2.5</sub> standards). PM<sub>2.5</sub> concentrations recorded over the last few years at the Riverside and Mira Loma monitoring sites continue to read well above the 1997 PM<sub>2.5</sub> NAAQS.<sup>21</sup> The PM<sub>2.5</sub> problem in the South Coast is complex, caused by both direct PM<sub>2.5</sub> and secondary PM<sub>2.5</sub>, and compounded by the topographical and meteorological conditions for the area that are very conducive to the formation and concentration of PM<sub>2.5</sub> particles. South Coast 2007 AQMP, Chapter 4.

As discussed in section IV.C.3. above, the District's strategy for attaining the PM<sub>2.5</sub> standard relies on reductions of directly-emitted PM<sub>2.5</sub> as well as the PM<sub>2.5</sub> precursor pollutants NO<sub>x</sub>, VOC, and SO<sub>x</sub>. The South Coast nonattainment area needs significant reductions in PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and SO<sub>x</sub> to demonstrate attainment. EPA believes that further reduction of these pollutants is challenging, because the State and local air pollution regulations already in place include most of the readily available PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and SO<sub>x</sub> control measures. Moreover, attainment in the South Coast nonattainment area must also mitigate

the emissions increases associated with the projected increases in population and emissions levels for this high-growth area.

The direct PM<sub>2.5</sub> reductions are achieved primarily from open burning and residential wood combustion control measures. These types of control measures present special implementation challenges (e.g., the large number of individuals subject to regulation and the difficulty of applying conventional technological control solutions). NO<sub>x</sub> reductions come largely from District rules for fuel combustion sources, and from the State's mobile source rules. VOC reductions come from District rules governing the petroleum industry, as well as consumer products rules at both the State and local level. SO<sub>x</sub> reductions identified in the plan come from District rules such as RECLAIM, and State measures related to ships.

Because of the necessity of obtaining additional emissions reductions from these source categories in the South Coast nonattainment area and the need to conduct significant public outreach if applicable control approaches are to be effective, EPA agrees with the District and CARB that the South Coast 2007 AQMP reflects expeditious implementation of the programs during the 2008–2014 time frame. EPA also agrees that the implementation schedule for enhanced stationary source controls is expeditious, taking into account the time necessary for purchase and installation of the required control technologies. Finally, we believe that it is not feasible at this time to accelerate the emission reduction schedule for the State and Federal mobile source requirements, which set aggressive compliance dates for new emission standards and which must rely on fleet turnover over the years to deliver the ultimate emission reductions. The District's control strategies are discussed in greater detail in Chapter 4 of the South Coast 2007 AQMP, and in section IV.C.2 above.

In addition, the State has adopted standards for many categories of on-road and off-road vehicles and engines, and gasoline and diesel fuels, and included commitments to develop rules for Smog Check Improvements, Cleaner In-Use Heavy-Duty Trucks, SIP Auxiliary Engines Cold Ironing and Clean Technology, Cleaner Main Ship Engines and Fuel, Cleaner In-Use Off-Road Equipment.

EPA believes that the District and State are implementing these rules and programs as expeditiously as practicable. We anticipate that the District will reevaluate this conclusion after completion of the mid-course review of the nonattainment SIP for this area, due in April 2011. EPA also expects that CARB and the District will continue to investigate opportunities to accelerate progress as new control opportunities arise, and that the agencies will promptly adopt and expeditiously implement any new measures found to be feasible in the future.

As discussed in section IV.C.6 above, however, we are not in a position at this time to approve, and therefore are proposing to disapprove, the RACM/RACT demonstration in the South Coast 2007 AQMP because we cannot approve the attainment demonstration. As stated in the PM<sub>2.5</sub> implementation rule, EPA cannot grant an extension of the attainment date beyond the initial five years provided by section 172(a)(2)(A) if the State has not adequately considered and evaluated the implementation of RACM and RACT for this area. (*See* 72 FR 20586, at 20601) Given the severity of the PM<sub>2.5</sub> nonattainment problem in the South Coast nonattainment area and the substantial progress the District has made to adopt and implement reduction strategies, an extension of the attainment date would most likely be appropriate and approvable if it were supported by the necessary analysis and a part of an attainment plan that meets the applicable statutory and regulatory requirements.

## 5. Attainment Demonstration

Table 7 below summarizes the measures that are relied upon in the South Coast 2007 AQMP's PM<sub>2.5</sub> attainment demonstration to achieve the target emissions estimates shown in Table 7. The District and State reduction levels reflect an agreement between CARB, the District, and SCAG which provides for more NO<sub>x</sub> reductions than were identified as necessary for attainment in the South Coast 2007 AQMP. *See* CARB Staff Report for South Coast 2007 AQMP, ES–1, ES–3; November 28, 2007 letter to Wayne Nastri, EPA Region 9 Regional Administrator, Enclosure VI, CARB Resolution 07–41, adopting the 2007 South Coast nonattainment area revisions to the California SIP, September 27, 2007.

<sup>21</sup> See footnote 3.

TABLE 7—SUMMARY OF MEASURES NEEDED FOR SOUTH COAST'S PM<sub>2.5</sub> ATTAINMENT DEMONSTRATION  
[tpd]

	NO <sub>x</sub>	VOC	PM <sub>2.5</sub>	SO <sub>x</sub>
A. 2006 baseline (2007 State Strategy, p. 33) .....	972	732	101	63
B. 2014 baseline (ARB Staff Report for South Coast 2007 AQMP) .....	654	528	102	43
C. 2014 Attainment target (ARB staff Report for South Coast 2007 AQMP) .....	460	474	86	20
D. Reductions needed from “new” measures (B minus C) .....	194	54	16	23
E. Total reductions needed by 2014 (A minus C) .....	512	258	16	43
F. Reductions from “baseline” (pre-2007 measures) (A minus B) .....	318	204	0	20
G. New local/AQMD reductions .....	28	10	4	3
H. New State reductions .....	152	46	9	20
I. Federal reductions .....	10	.....	.....	.....
J. Additional local/AQMD reductions .....	4	.....	.....	.....
K. Total “new” reductions (G+H+I+J) .....	194	56	16	23
L. Total reductions (F+K) .....	512	260	16	43

Source: CARB staff report on the South Coast 2007 AQMP, 2009 State Strategy Status Report.

As shown in Table 7, the majority of emissions reductions the State projects are needed for PM<sub>2.5</sub> attainment in the South Coast nonattainment area by 2015 come from baseline reductions, i.e., from adopted measures that have generally been approved by EPA either through the SIP or the CAA section 209 waiver process. See Appendices A and B of the TSD. The remaining reductions needed for attainment are to be achieved through the District's and CARB's commitments to reduce emissions in the

South Coast and from a federal assignment which EPA cannot approve, as discussed below. Since the submittal of the South Coast 2007 AQMP and 2007 State Strategy, the District and CARB have already adopted measures (summarized in Table 8 below) that can be credited toward reducing their aggregate emissions reduction in their enforceable commitments. For the State, adopted waiver measures<sup>22</sup> or EPA-approved measures since 2007 (Ship Auxiliary Engine Cold Ironing & Clean

Technology; Clean Up Existing Harbor Craft; Modifications to Reformulated Gasoline Program—Phase 3; Consumer Products Program I) reduced emissions by 27.8 tpd of NO<sub>x</sub>, 6.4 tpd of VOC, 0.6 tpd of PM<sub>2.5</sub> and 0.3 of SO<sub>x</sub> (See Table 8 for a summary of these reductions). Emissions reductions from District measures approved by EPA since 2007 include 14.5 tpd of NO<sub>x</sub>, 4.3 tpd of VOC, and 1.2 tpd of PM<sub>2.5</sub>.

TABLE 8—SUMMARY OF ENFORCEABLE COMMITMENTS IN THE SOUTH COAST 2007 AQMP FOR PM<sub>2.5</sub> ATTAINMENT IN 2014

	2014 NO <sub>x</sub>	2014 VOC	2014 PM <sub>2.5</sub>	2014 SO <sub>x</sub>
State Strategy Commitment (tpd) .....	152 .....	46 .....	9 <sup>23</sup> .....	20.
Less Reductions from Adopted Waiver Measures or EPA-approved measures Since 2007 (Ship Auxiliary Engine Cold Ironing & Clean Technology; Clean Up Existing Harbor Craft; Modifications to Reformulated Gasoline Program—Phase 3; Consumer Products Program I) <sup>a</sup> .....	27.8 tpd ...	6.4 tpd ....	0.6 tpd ....	0.3 tpd.
Remaining State Commitment .....	124.2 .....	39.6 .....	8.4 .....	19.7.
District Commitment .....	32 .....	10 .....	4 .....	3.
Less reductions from EPA approved District measures since 2007 .....	14.5 .....	4.3 .....	1.2 .....	0.
Remaining District Commitment .....	17.5 .....	5.7 .....	2.8 .....	3.
Missing 3 tpd PM <sub>2.5</sub> (See footnote 23) .....	.....	.....	3 .....	.....
Total remaining commitment (tpd) <sup>b</sup> .....	151.7 .....	45.3 .....	14.2 .....	22.7.
Total remaining commitment (%) (compared to Line E of Table 7 above) .....	30% .....	18% .....	89% <sup>c</sup> .....	53%.

<sup>a</sup> Reductions from other adopted measures listed in the revised 2007 State Strategy on p. 5 (South Coast 2014) are not creditable in reducing the enforceable commitment because they have either not been submitted to EPA or approved (or proposed for approval) into the SIP. These measures include the Smog Check Improvements (to be adopted by the Bureau of Automotive Repair (BAR)), Cleaner In-Use Heavy-Duty Trucks, Cleaner In-Use Off-Road Equipment, and Cleaner Main Ship Engines and Fuel. See 2009 State Strategy revisions, p. 5.

<sup>b</sup> Includes federal assignment of 10 tpd NO<sub>x</sub>.

<sup>c</sup> See footnote 23. This percentage assumes that total direct PM<sub>2.5</sub> reductions needed for attainment is 16 tpd, as indicated in Table 7.

#### a. Enforceable Commitments

As stated and shown above, measures already adopted by the District and CARB (both prior to and pursuant to the South Coast 2007 AQMP and revised 2007 State Strategy) provide the

majority of emission reductions needed to demonstrate attainment in the nonattainment SIP as designed for this area. The balance of the needed reductions is in the form of enforceable commitments by CARB. This approach

is consistent with past practice because the CAA allows approval of enforceable commitments that are limited in scope where circumstances exist that warrant the use of such commitments in place

<sup>22</sup> EPA allows emission reduction credit for measures that are subject to the CAA section 209 process. See EPA's proposed approval of the San Joaquin Valley 1-Hour Ozone Plan at 74 FR 33933, 33938 (July 14, 2009). The State's baseline non-

waiver measures have generally all been approved by EPA into the SIP. See TSD, Appendix A.

<sup>23</sup> The 2007 State Strategy identifies 9 tpd of directly-emitted PM<sub>2.5</sub> as the aggregate State commitment by the 2015 attainment date (See 2009 State Strategy Status Report, page 20) but the CARB

staff report for the South Coast 2007 AQMP indicates a 12 tpd commitment. (See 2007 staff report, page ES-3) It is unclear whether the State's commitment is for 9 tpd PM<sub>2.5</sub> or 12 tpd of direct PM<sub>2.5</sub>.

of adopted measures.<sup>24</sup> Once EPA determines that circumstances warrant consideration of an enforceable commitment, EPA considers three factors in determining whether to approve the CAA requirement that relies on the enforceable commitment: (a) Does the commitment address a limited portion of the CAA requirement; (b) is the State capable of fulfilling its commitment; and (c) is the commitment for a reasonable and appropriate period of time.<sup>25</sup>

We believe that, in acting on the South Coast 2007 AQMP and revised 2007 State Strategy, circumstances warrant the consideration of enforceable commitments as part of the attainment demonstrations for this area. As shown in Table 8 above, the majority of emission reductions needed to demonstrate attainment and all of the emission reductions needed to demonstrate RFP come from rules and regulations that were adopted prior to the AQMP's submittal in November 2007, i.e., they come from the baseline measures.

As a result of these already-adopted State and District efforts, most sources

in the South Coast nonattainment area were already subject to stringent rules prior to the development of the 2007 State Strategy and the South Coast 2007 AQMP, leaving fewer and more technologically challenging opportunities to reduce emissions. In the South Coast 2007 AQMP and the revised 2007 State Strategy, the District and CARB identified potential control measures that could achieve the additional emissions reductions needed for attainment (*See* CARB Staff Report on South Coast 2007 AQMP, pp. 17–20, and revised 2007 State Strategy, p. 17). However, the timeline needed to develop, adopt, and implement these measures went well beyond November 28, 2007, the submittal date of the South Coast's attainment plan. As discussed above and below, since 2007, the State and District have made progress meeting their commitments, but have not completely fulfilled them. Given these circumstances, the reliance on enforceable commitments in the South Coast 2007 AQMP and the 2007 State Strategy is warranted. We now consider the three factors EPA uses to determine whether enforceable commitments in lieu of adopted measures are approvable.

#### i. The Commitments Do Not Represent a Limited Portion of Required Reductions

First, we look to see if the commitment addresses a limited portion of a statutory requirement, such as the amount of emissions reductions needed in a nonattainment area. The remaining portion of the enforceable commitments in the South Coast 2007 AQMP and the revised 2007 State Strategy are 141.7 tpd NO<sub>x</sub>, 45.3 tpd VOC, 11.2 tpd direct PM<sub>2.5</sub> and 22.7 tpd SO<sub>x</sub>. When compared to the State's current estimate of the emissions reductions needed for PM<sub>2.5</sub> attainment in 2014, the remaining portion of the enforceable commitments represent approximately 30% of the needed NO<sub>x</sub> reductions, 18% of the needed VOC reductions, 89% of the needed PM<sub>2.5</sub> reductions and 53% of the needed SO<sub>x</sub> reductions. Historically, EPA has generally approved nonattainment area SIPs with enforceable commitments in the range of 10% or less of the total needed emissions reductions. *See, e.g.,* approval of the San Joaquin Valley PM–10 SIP at 69 30005 (May 26, 2004), approval of the San Joaquin 1-hour ozone plan at 75 FR 10420 (March 8, 2010), and approval of the Houston-Galveston ozone SIP at 66 FR 57160, 57161 (November 14, 2001).

We note that there are significant emissions reductions tied to the Cleaner

In-Use Heavy-Duty Trucks measure, and the Cleaner Main Ship Engines and Fuel measure listed in the 2009 State Strategy Status Report, page 5. EPA understands that the State is working on adopting and submitting these measures for EPA approval. It is possible that the reductions from these measures and several outstanding District rules will reduce the percentage of the remaining portion of the emissions reductions attributed to enforceable commitments to below 10% of the total needed reductions for each of the pollutants. However, until these (or other) measures are adopted, submitted to EPA and approved (as necessary), we believe that the percentages of enforceable commitments for NO<sub>x</sub>, VOC, direct PM<sub>2.5</sub> and SO<sub>x</sub>, relied upon by the South Coast 2007 AQMP and revised 2007 State Strategy are too high and not a limited portion of the total emissions reductions needed to meet the statutory requirement for attainment in the South Coast nonattainment area.

#### ii. The State is Capable of Fulfilling Its Commitment

The second factor to consider for enforceable commitments is whether the State and District are capable of fulfilling their commitments. As discussed above, following the adoption and submittal of the 2007 State Strategy, CARB adopted and submitted the 2009 State Strategy Status Report which shows the State's progress in achieving its enforceable commitments for the South Coast and several other nonattainment areas in California. The revised 2007 State Strategy shows that during 2007 and 2008, the State adopted rules for 10 control measures identified in the 2007 State Strategy and 3 control measures that were not identified in the 2007 State Strategy that will contribute to the needed PM<sub>2.5</sub> reductions. *See* 2009 Status Report on State Strategy, p. 1, Highlights. While progress has been made by the State to achieve its enforceable commitments for reductions of NO<sub>x</sub>, VOC, direct PM<sub>2.5</sub> and SO<sub>x</sub>, there are still significant reductions that must be addressed in order to satisfy the commitments. As discussed above, the remaining portion of the enforceable commitments is anywhere from 18–89% for the relevant pollutants. The revised 2007 State Strategy includes a table with estimates of the measures that may fulfill the whole commitment. *See* 2009 Status Report on State Strategy, p. 17. While the percentage of remaining commitments is too high for EPA to accept as part of an approvable attainment demonstration, EPA believes that the State and District have made good progress in meeting their

<sup>24</sup> Commitments approved by EPA under section 110(k)(3) of the CAA are enforceable by EPA and citizens under, respectively, sections 113 and 304 of the CAA. In the past, EPA has approved enforceable commitments and courts have enforced these actions against states that failed to comply with those commitments: *See, e.g., American Lung Ass'n of N.J. v. Kean*, 670 F. Supp. 1285 (D.N.J. 1987), *aff'd*, 871 F.2d 319 (3rd Cir. 1989); *NRDC, Inc. v. N.Y. State Dept. of Env. Cons.*, 668 F. Supp. 848 (S.D.N.Y. 1987); *Citizens for a Better Env't v. Deukmejian*, 731 F. Supp. 1448, *recon. granted in part*, 746 F. Supp. 976 (N.D. Cal. 1990); *Coalition for Clean Air v. South Coast Air Quality Mgt. Dist.*, No. CV 97–6916–HLH, (C.D. Cal. Aug. 27, 1999). Further, if a state fails to meet its commitments, EPA could make a finding of failure to implement the SIP under CAA Section 179(a), which starts an 18-month period for the State to correct the non-implementation before mandatory sanctions are imposed.

CAA section 110(a)(2)(A) provides that each SIP “shall include enforceable emission limitations and other control measures, means or techniques \* \* \* as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirement of the Act.” Section 172(c)(6) of the Act, which applies to nonattainment SIPs, is virtually identical to section 110(a)(2)(A). The language in these sections of the CAA is quite broad, allowing a SIP to contain any “means or techniques” that EPA determines are “necessary or appropriate” to meet CAA requirements, such that the area will attain as expeditiously as practicable, but no later than the designated date. Furthermore, the express allowance for “schedules and timetables” demonstrates that Congress understood that all required controls might not have to be in place before a SIP could be fully approved.

<sup>25</sup> The U.S. Court of Appeals for the Fifth Circuit upheld EPA's interpretation of CAA sections 110(a)(2)(A) and 172(c)(6) and the Agency's use and application of the three factor test in approving enforceable commitments in the 1-hour ozone SIP for Houston-Galveston. *BCCA Appeal Group et al. v. EPA et al.*, 355 F.3d 817 (5th Cir. 2003).



enforceable commitments in the past. Given the evidence of the State's and District's efforts to date and their continuing program to adopt controls, we believe that the State and District are capable of meeting their enforceable commitments to achieve the necessary reductions in the South Coast nonattainment area by 2014.

iii. The Commitment Is for a Reasonable and Appropriate Timeframe

Finally, the third factor we consider is whether the commitment is for a reasonable and appropriate period of time. In order to meet the commitment to achieve the needed reductions by 2014, the South Coast 2007 AQMP and the 2007 State Strategy projected an ambitious rule development, adoption, and implementation schedule. EPA considers this projected schedule as providing sufficient time to achieve the committed reductions by 2014. As we noted previously, many of the scheduled measures have been adopted. *See* Tables 2, 3, 5 and 6 above and the 2009 State Strategy Status Report, pp. 4, 17 & 23. The State and District are continuing to evaluate their adopted measures and the need for additional emissions reductions from new measures in this area. *See* District Board Resolution 07–9 and the 2009 State Strategy Status Report, p. 24. While we believe the State and District have provided a reasonable and appropriate schedule for achieving their commitments by 2014, as discussed above, EPA is not proposing to approve the attainment date extension for the South Coast nonattainment area. Thus we cannot currently conclude that the third factor is satisfied.

b. Federal Reductions

As shown in Table 7, the South Coast 2007 AQMP assigns 10 tons per day of NO<sub>x</sub> reductions to the Federal government. The CAA does not authorize a State to assign responsibility to the Federal government for meeting SIP requirements. However, we agree that we have both the authority and the responsibility under the Act for regulating certain nationwide sources of air pollution. The 1990 CAA Amendments extended EPA's authority to regulate nonroad vehicles and engines and expressly required EPA to evaluate nonroad engine emissions, determine whether these emissions contribute significantly to ozone or CO in areas which have failed to attain the ozone or CO NAAQS, and regulate these emissions categories if found to be significant. EPA agrees with the State that national mobile source emissions are increasingly significant contributors

to PM<sub>2.5</sub> and ozone pollution, particularly in the South Coast. The federal government has adopted a variety of national measures that have reduced emissions in the South Coast and will continue to explore future reduction opportunities. South Coast may take credit for these reductions in its attainment plans. The District may not, however, assign a reduction target to the federal government as it has done in the 2007 AQMP.

In May 2004, as part of the Clean Air Nonroad Diesel Rule, EPA finalized new requirements for nonroad diesel fuel that decreased the allowable levels of sulfur in fuel used in locomotives by 99 percent.<sup>26</sup> The requirement for locomotives to use ultra-low sulfur diesel takes effect in 2012. These fuel improvements have created and will continue to result in significant environmental and public health benefits by reducing PM<sub>2.5</sub> from existing engines. In addition, in March 2008, EPA finalized a three-part program that reduces emissions from diesel locomotives of all types—line-haul, switch, and passenger rail.<sup>27</sup> The Locomotive and Marine Diesel Engine rule cuts PM<sub>2.5</sub> emissions from these engines by as much as 90 percent and NO<sub>x</sub> emissions by as much as 80 percent when fully implemented. This rule sets new emission standards for existing locomotives when they are remanufactured. The rule also includes Tier 3 emission standards for newly-built locomotives, provisions for clean switch locomotives, and idle reduction requirements for new and remanufactured locomotives. The Tier 3 emissions standards for locomotives started to phase-in in 2009. Finally, the Locomotive and Marine Diesel Engine rule establishes long-term, Tier 4, standards for newly-built engines based on the application of high-efficiency catalytic after treatment technology, beginning in 2015. *See* 73 FR 37096. To the extent that these and other Federal programs yield additional reductions in the South Coast by 2014, the South Coast 2007 AQMP and State Strategy can be revised to reflect these reductions.

However, as stated above, because the CAA does not authorize States to assign responsibility for meeting emission reduction requirements to the EPA, we

are proposing to disapprove the 10 tpd NO<sub>x</sub> emissions reductions the District and State assigned to the Federal government in the South Coast 2007 AQMP.

5. Proposed Action on Attainment Demonstrations

In order to approve a SIP's attainment demonstration, EPA must make several findings and approve the plan's proposed attainment date.

First, we must find that the demonstration's technical bases, including the emissions inventories and air quality modeling, are adequate. As discussed above in section IV.B and IV.D, we are proposing to approve these portions of the South Coast 2007 AQMP.

Second, we must find that the SIP submittal provides for expeditious attainment through the implementation of all RACM and RACT. As discussed above in section IV.C., we are proposing to disapprove the RACM/RACT demonstration in the South Coast South Coast 2007 AQMP.

Third, EPA must find that the emissions reductions that are relied on for attainment are creditable. As discussed above in section IV.D.5.a., the South Coast 2007 AQMP relies on enforceable commitments for almost 27 percent of the State's current estimate of the total emissions reductions needed in this area. *See* Table 8. While EPA has previously accepted enforceable commitments in lieu of adopted control measures in attainment demonstrations, EPA has done so only when the circumstances warranted it and the commitments met three criteria. We believe that circumstances here warrant the consideration of enforceable commitments. We also believe that both the State and the District have demonstrated their capability to meet their commitments. However, the commitments do not constitute a limited portion of the required emissions reductions, and are not for an appropriate timeframe. The State's and District's unfulfilled commitments currently represent 30 percent of the NO<sub>x</sub> reductions, 18 percent of the VOC reductions, 89 percent of the PM<sub>2.5</sub> reductions, and 53 percent of the SO<sub>x</sub> emissions reductions currently estimated to be required for attainment of the 1997 PM<sub>2.5</sub> NAAQS in the South Coast nonattainment area. These percentages are well above the 10 percent figure of total reductions needed for attainment generally accepted by EPA to approve an attainment demonstration that relies in part on enforceable commitments. The timeframe of 2014 is not currently appropriate since we are not proposing

<sup>26</sup> *See* 69 FR 38957, "Control of Emissions of Air Pollution from Nonroad Diesel Engines", also referred to as the "Clean Air Nonroad Diesel Rule", June 29, 2004.

<sup>27</sup> *See* 73 FR 37095, "Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 Liters per Cylinder," also referred to as the "Locomotive and Marine Diesel Engine Rule," June 30, 2008.

to grant the State's request for the full attainment date extension to 2015.

Finally, for PM<sub>2.5</sub> nonattainment areas that demonstrate that they cannot attain within five years of designation as nonattainment, EPA must grant an extension of the attainment date in order to approve the attainment demonstration for the area. As discussed above in section IV.D.4., we are proposing not to grant the State's request to extend the attainment date in the South Coast nonattainment area to April 5, 2015 because we cannot at this time approve the attainment demonstration.

For the foregoing reasons, we are proposing to disapprove the attainment demonstration in the South Coast 2007 AQMP. As noted above, however, we believe that the State and District are in a position to address these issues in the relatively near term, before we take final action. We look forward to working with the State and District in the coming months.

#### E. RFP Demonstration

##### 1. Requirements for Reasonable Further Progress

CAA Section 172(c)(2) requires that plans for nonattainment areas shall provide for reasonable further progress (RFP). RFP is defined in section 171(1) as "such annual incremental reductions in emissions of the relevant air pollutant as are required by this part or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable [NAAQS] by the applicable date."

The PM<sub>2.5</sub> implementation rule requires submission of a specific RFP demonstration at the same time as the attainment demonstration for any area for which the State justifies an extension of the attainment date beyond 2010. For areas seeking an attainment date extension to 2015 such as the South Coast, the RFP demonstration must show that in the applicable milestone years of 2009 and 2012, emissions in the area will be at a level consistent with generally linear progress in reducing emissions between the base year and the attainment year. *See* 40 CFR 51.1009(d). States may demonstrate this by showing that emissions for each

milestone year are roughly equivalent to benchmark emission levels for direct PM<sub>2.5</sub> emissions and each PM<sub>2.5</sub> attainment plan precursor addressed in the plan. The steps for determining the benchmark emissions levels to demonstrate generally linear progress are given in the PM<sub>2.5</sub> implementation rule in 40 CFR 51.1009(f).

The RFP plan must describe the control measures that provide for meeting the reasonable further progress milestones for the area, the timing of implementation of those measures, and the expected reductions in emissions of directly-emitted PM<sub>2.5</sub> and PM<sub>2.5</sub> attainment plan precursors. *See* 40 CFR § 51.1009(c).

##### 2. RFP Demonstration in the South Coast 2007 AQMP

The RFP demonstration is in Chapter 6 of the South Coast 2007 AQMP. The demonstration addresses direct PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and SO<sub>x</sub> emissions and uses the 2002 annual average inventory as the baseline year inventory and 2014 as the attainment year. Table 9 below summarizes the South Coast PM<sub>2.5</sub> RFP demonstration. *See* South Coast 2007 AQMP, Table 6–3A.

TABLE 9—SOUTH COAST RFP DEMONSTRATION

Pollutant	NO <sub>x</sub>	VOC	PM <sub>2.5</sub>	SO <sub>x</sub>
2002 baseline inventory (tpd) .....	1,093	844	99	53
Annual percentage change needed to show linear progress (%) .....	4.87	3.7	1.01	5.35
2009 target needed to show linear progress (tpd) .....	720	625	92	33
2009 remaining emissions with plan (tpd) .....	813	578	99	28
Projected shortfall (tpd) .....	93	0	7	0
2012 target needed to show linear progress (tpd) .....	561	532	89	25
2012 remaining emissions with plan (tpd) .....	565	505	92	21
Projected shortfall (tpd) .....	4	0	3	0
2014 remaining emissions with plan (tpd) .....	459	464	87	19

As discussed above, the District's modeling demonstration indicated that for attainment of the 1997 PM<sub>2.5</sub> NAAQS, SO<sub>x</sub> reductions are the most effective, followed by directly-emitted PM<sub>2.5</sub>, and then NO<sub>x</sub> and VOC. Therefore, the District's proposed control strategy maximizes reductions of direct PM<sub>2.5</sub> and SO<sub>x</sub> to the extent possible. The RFP demonstration for 2009 shows a shortfall of 7 tpd of directly-emitted PM<sub>2.5</sub> and 93 tpd of NO<sub>x</sub> while the SO<sub>x</sub> and VOC reductions exceed their linear targets. The RFP demonstration for 2012 indicates a slight shortfall in meeting the 2012 milestones for directly-emitted PM<sub>2.5</sub> and for NO<sub>x</sub>, although SO<sub>x</sub> and PM<sub>2.5</sub> targets are not only met but surpassed. While the shortfall of 93 tpd for NO<sub>x</sub> in 2009 is significant, this shortfall is

almost completely made up by the reductions estimated for 2012. We note that the shortfall in 2012 for PM<sub>2.5</sub> is only about 3% of the 2002 baseline inventory, and the shortfall in NO<sub>x</sub> reductions is less than 1%, while SO<sub>x</sub> and VOC reduction milestones are exceeded by more than 4% and 3% respectively. Thus, we find that the RFP demonstration for 2012 meets the "generally linear" test for RFP requirements for 2012 and addresses the shortfall of NO<sub>x</sub> in 2009.

##### 3. Proposed Action on the RFP Demonstration

While we believe the District has demonstrated generally linear progress towards attainment by 2015, we are not proposing to approve the attainment date extension to 2015 and therefore cannot propose to approve the RFP

demonstration. We believe, however, that if the deficiencies identified with the attainment demonstration are addressed, we may then be able to propose to approve the attainment date extension and RFP demonstration. *See* 40 CFR 51.1009.

#### F. Contingency Measures

##### 1. Requirements for Contingency Measures

Under CAA section 172(c)(9), all PM<sub>2.5</sub> attainment plans must include contingency measures to be implemented if an area fails to meet RFP ("RFP contingency measures") and contingency measures to be implemented if an area fails to attain the PM<sub>2.5</sub> NAAQS by the applicable attainment date ("attainment contingency measures"). These

contingency measures must be fully adopted rules or control measures that are ready to be implemented quickly without significant additional action by the State. 40 CFR 51.1012. They must also be measures not relied on in the plan to demonstrate RFP or attainment and should provide SIP-creditable emissions reductions equivalent to one year of RFP. Finally, the SIP should contain trigger mechanisms for the contingency measures and specify a schedule for their implementation. 72 FR 20586, p. 20642.

Contingency measures can include Federal measures and local measures already scheduled for implementation that provide emissions reductions in excess of those needed to provide for RFP or expeditious attainment. EPA has approved numerous SIPs under this interpretation. *See, e.g.*, 62 FR 15844, April 3, 1997; 62 FR 66279, December 18, 1997; 66 FR 30811, June 8, 2001; 66 FR 586 and 66 FR 634, January 3, 2001.

## 2. Contingency Measures in the South Coast 2007 AQMP

The attainment plan for the South Coast nonattainment area includes contingency measures to be implemented if the area fails to attain by its attainment date or fails to meet RFP requirements. The contingency measures for the South Coast nonattainment area are described in Chapter 9 of the South Coast 2007 AQMP and discussed in more detail in Appendix IV–A, section 2 of the AQMP. They are described below.

The South Coast 2007 AQMP describes the contingency measures in the following way, “Although implementation of these measures is expected to reduce emissions, there are issues that limit the viability of these measures as AQMP control measures at this time. Issues surrounding these measures include, but are not limited to availability of District resources to implement and enforce the measure, cost-effectiveness of the measure, potential adverse environmental impacts, potential economic impacts, effectiveness of emissions reductions, and availability of methods to quantify emissions reductions.” South Coast 2007 AQMP, page 9–1. The contingency measures do not meet the requirements of the CAA, namely the requirements for these contingency measures to be fully adopted or otherwise ready for quick implementation, for trigger mechanisms and an implementation schedule, and the AQMP does not provide for quantification of emissions reductions demonstrating the equivalent of one year of RFP.

*CTY-01—Offsetting potential emissions increase due to change in natural gas specifications*—This proposed contingency measure requires RECLAIM facilities that use natural gas of a quality that creates more emissions to offset these emissions for all pollutants. The measure is listed as a “Remaining 2003 AQMP Revision Control Measure” and thus was relied on in the 2003 AQMP for attainment. In addition, the reductions are not quantified, and may be zero, since the proposed measure may only reduce future emissions increases rather than provide net reductions. The measure is not triggered by failure to meet RFP or attainment and there is no defined implementation schedule. For these reasons, this proposed measure does not meet CAA requirements for contingency measures.

*CTY-02—Clean Air Act Emission Fees for Major Stationary Sources*—This proposed contingency measure would use fees generated from the District’s Rule 317, Clean Air Act Nonattainment Fees, to achieve emissions reductions. The implementation of Rule 317 is triggered by a failure of the South Coast to attain the 1-hour standard by its applicable attainment date (which can occur no earlier than November 15, 2010) and not by any failure to make RFP or to attain the PM<sub>2.5</sub> NAAQS, a minimum requirement for contingency measures for PM<sub>2.5</sub> SIPs. There is no implementation schedule provided, and the AQMP does not quantify the reductions associated with this measure. For these reasons, this proposed measure does not meet CAA requirements for contingency measures.

*CTY-03—Banning pre-Tier 3 off road diesel engines on High Pollution Advisory (HPA) days*—This proposed contingency measure would complement a CARB rule which proposed to establish declining fleet average emissions levels for off-road equipment over 25 horsepower (hp). The District proposed a complementary measure, SC–OFFRD–1, that would ban the use of pre-Tier 3 off-road diesel engines after 2023 on HPA days should the South Coast nonattainment area fail to meet the 8-hour ozone standard. This proposed contingency measure would require additional rulemaking at the District level, as it is not currently adopted. It also would be implemented too late in time to provide for RFP or contingency reductions for PM<sub>2.5</sub> RFP or attainment. In addition, the AQMP does not quantify the reductions associated with this measure. For these reasons, this proposed measure does not meet CAA requirements for contingency measures.

*CTY-04—Accelerated implementation of CARB’s mobile source measures*—This proposed contingency measure, which could function as both an RFP and an attainment contingency measure, requires the District’s Board to request that CARB accelerate the adoption and/or implementation of the remaining control measures that have not been adopted or fully implemented by one year. South Coast 2007 AQMP, page 9–3. Under CAA section 172(c)(9) and EPA’s long-standing policies interpreting this section, contingency measures must require minimal additional rulemaking by the State and take effect within a few months of a failure to make RFP or to attain. This proposed contingency measure would require additional rulemaking at the District level and potentially substantial and lengthy additional rulemaking at the State level to be implemented. There is no trigger mechanism or implementation schedule provided, and the AQMP does not quantify the reductions associated with this measure. For these reasons, this proposed measure does not meet CAA requirements for contingency measures.

*Post-Attainment-Year Emissions Reductions.* We note that we are not proposing to approve the attainment date extension. However, even if it were approved, excess reductions in 2015/2016 from CARB mobile source measures do not fully address the contingency measure requirement for the PM<sub>2.5</sub> attainment year. There is no calculation of the emissions reductions equivalent of one year’s work of RFP in the South Coast 2007 AQMP. However, from information in the Plan, we calculate one year’s worth of RFP to be 1.08 tpd PM<sub>2.5</sub>, 52.8 tpd NO<sub>x</sub>, 30.8 tpd of VOC, and 2.75 tpd SO<sub>2</sub>. *See* TSD, section II.H, and CARB Staff Report on the 2007 South Coast AQMP, Appendix A. However, CARB’s mobile source measures do not provide sufficient NO<sub>x</sub> reductions to meet one year’s worth of RFP; therefore, post-attainment-year emissions reductions cannot be used to meet the CAA contingency measure requirement.

## 3. Proposed Action on the Contingency Measures

The South Coast 2007 AQMP includes suggestions for several measures that do not meet the CAA’s minimum requirements (e.g., no additional rulemaking, surplus to attainment and RFP needs). The AQMP, however, indicates that the measures proposed by the District are not adopted, and does not quantify the expected emissions reductions in order to gauge whether

they provide reductions equivalent to one year's worth of RFP. For the reasons stated above, we are proposing to disapprove the District's contingency measure provisions in the South Coast 2007 AQMP for PM<sub>2.5</sub>.

#### *G. Motor Vehicle Emissions Budgets for Transportation Conformity*

Transportation conformity is required by section 176(c) of the CAA. Our transportation conformity rule (codified in 40 CFR part 93, subpart A) requires that transportation plans, programs, and projects conform to SIPs and establishes the criteria and procedures for determining whether or not they do so. Conformity to the SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards or any interim milestone.

Control strategy SIP submittals (such as RFP and attainment SIP submittals) must specify the maximum emissions of transportation-related emissions allowed in the RFP years and attainment year, i.e., the motor vehicle emissions budgets ("budgets"). The submittal must also demonstrate that these emissions levels, when considered with emissions from all other sources, are consistent with RFP or attainment of the NAAQS, whichever is applicable. In order for us

to find these emissions levels or "budgets" adequate and/or approvable, the submittal must meet the conformity adequacy provisions of 40 CFR 93.118(e)(4) and (5). Additionally, motor vehicle emissions budgets cannot be approved until EPA completes a detailed review of the entire SIP and determines that the SIP and the budgets will achieve their intended purpose (i.e., RFP, attainment or maintenance). For more information on the transportation conformity requirement and applicable policies on budgets, please visit our transportation conformity Web site at: <http://www.epa.gov/otaq/stateresources/transconf/index.htm>.

As submitted on November 28, 2007, the 2007 South Coast AQMP included a set of PM<sub>2.5</sub> budgets for RFP years 2009 and 2012, the attainment year 2014, and analysis years 2023 and 2030. See CARB Resolution 07-05, which revised the budgets in the 2007 South Coast AQMP as adopted by the District, and which was included in the November 28, 2007 submittal. We refer herein to these budgets as the "original" budgets. On April 30, 2008, CARB submitted a SIP revision that replaces the original set of PM<sub>2.5</sub> budgets with two new sets of budgets (herein, "replacement" budgets). One set of the replacement budgets is referred to as "SIP-based" budgets, and

the other set is referred to as "baseline" budgets. In its April 30, 2008 submittal, CARB requests that EPA give primary consideration to the "SIP-based" budgets and only find the "baseline" budgets to be adequate if EPA cannot find the "SIP-based" budgets adequate in their entirety.

The replacement budgets submitted on April 30, 2008 differ from the original budgets in that they reflect the EPA-approved EMFAC2007 motor vehicle emissions factor model (See 73 FR 3464, January 18, 2008) rather than District's CEPA emission factor model, which had been used for the original budgets. The "SIP-based" budgets reflect emissions reductions from rules adopted by October 2006 and also from control measures CARB expects to adopt in regulatory form in the future. The "baseline" budgets differ from the "SIP-based" budgets by excluding emission reductions from control measures in the 2007 State Strategy that had not been adopted in regulatory form by October 2006.<sup>28</sup> Moreover, the "baseline" budgets are only established for RFP years 2009 and 2012 whereas the "SIP-based" budgets are established for the RFP years, the attainment year, and analysis years 2023 and 2030. The two sets of PM<sub>2.5</sub> budgets (i.e., the replacement budgets) are shown in Tables 10 and 11, below.

TABLE 10—"SIP-BASED" PM<sub>2.5</sub> MOTOR VEHICLE EMISSIONS BUDGETS

[Annual average tons per day]

Budget year	VOC	NO <sub>x</sub>	PM <sub>2.5</sub>
2009	196	413	38
2012	139	276	37
2014	122	201	33
2023	89	131	37
2030	75	121	39

TABLE 11—"BASELINE" PM<sub>2.5</sub> MOTOR VEHICLE EMISSIONS BUDGETS

[Annual average tons per day]

Budget year	VOC	NO <sub>x</sub>	PM <sub>2.5</sub>
2009	196	413	38
2012	163	337	38

On August 12, 2009, CARB submitted a SIP revision that updates certain portions of the 2007 State Strategy to account for emission reductions from regulations adopted in 2007 and 2008, some of which relate to on-road sources, such as modifications to the reformulated gasoline program, smog check improvements, and cleaner in-use

heavy duty trucks. CARB's August 12, 2009 SIP revision did not revise the budgets but documents the extent to which control measures for which credit had been taken in the "SIP-based" budgets, but not in the "baseline" budgets, have now been adopted in regulatory form.

EPA generally first reviews budgets submitted with an attainment, RFP, or maintenance plan for adequacy, prior to taking action on the plan itself, and did so with respect to the PM<sub>2.5</sub> budgets in the 2007 South Coast AQMP. The availability of the original budgets was announced for public comment on EPA's adequacy Web page on February

<sup>28</sup> With respect to the "SIP-based" budget for RFP year 2009, however, CARB did exclude the

emissions reductions from measures not adopted by October 2006. Thus, the "SIP-based" PM<sub>2.5</sub> budget

for 2009 is the same as the "baseline" PM<sub>2.5</sub> budget for that year.

12, 2008 and the availability of the replacement (then available in draft form) was announced for public comment on March 27, 2008. EPA received comments from the public in response to both postings.

On May 6, 2008, we found the "SIP-based" PM<sub>2.5</sub> budgets for the 2007 South Coast AQMP, as revised on April 30, 2008, to be inadequate for transportation conformity purposes. *See* the letter and enclosures dated May 6, 2008 from Deborah Jordan, Director, Air Division, EPA Region IX to James Goldstone, Executive Officer, CARB (a copy of which has been placed in the docket for this rulemaking). However, in our May 2008 adequacy determination, we found the "baseline" PM<sub>2.5</sub> budgets for RFP years 2009 and 2012 to be adequate. Generally, we found the "SIP-based" budgets to be inadequate because they reflected control measures not yet adopted in regulatory form and thus not adequately quantified or supported by the plan. In contrast, we found the "baseline" PM<sub>2.5</sub> budgets to be consistent with the plan's RFP demonstration and to be based on adopted mobile source regulations that have already been implemented. Our notice of adequacy/inadequacy of the budgets was published on May 15, 2008 at 73 FR 28110 (corrected on June 18, 2008 at 73 FR 34837), and was effective on May 30, 2008.

The criteria by which we determine whether a SIP's budgets are adequate and approvable for conformity purposes are outlined in 40 CFR 93.118(e)(4) and (5). The following paragraphs provide our review of the "SIP-based" and "baseline" PM<sub>2.5</sub> budgets for the 2007 South Coast AQMP against our adequacy criteria and provide the basis for our proposed action relative to the budgets. Since the criteria for evaluation purposes are the same for adequacy or inadequacy as for approval or disapproval of budgets, we incorporate by reference our earlier determination of adequacy/inadequacy, and focus in the following paragraphs on those considerations that have changed since the time of our May 2008 adequacy/inadequacy determination.

Under 40 CFR 93.118(e)(4)(i), we review a submitted plan to determine whether the plan was endorsed by the Governor (or designee) and was subject to a public hearing. As documented in our May 2008 adequacy/inadequacy determination, the 2007 South Coast AQMP and 2007 State Strategy, and April 2008 replacement budgets, were all submitted under cover of letters signed by CARB's Executive Officer, the Governor's designee. Likewise, CARB's August 12, 2009 SIP revision was

submitted under cover of a letter sent by CARB's Executive Officer and includes documentation of a public hearing held on April 23–24, 2009. Therefore, we propose that the submitted plan and related "SIP-based" and "baseline" budgets meet the criterion under 40 CFR 93.118(e)(4)(i).

Under 40 CFR 93.118(e)(4)(ii), we review a submitted plan to determine whether the plan was developed through consultation with Federal, State and local agencies and whether full implementation plan documentation was provided to EPA and EPA's stated concerns, if any, were addressed. As documented in our May 2008 adequacy/inadequacy determination, the 2007 South Coast AQMP and 2007 State Strategy, and April 2008 replacement budgets, were all developed through consultation with Federal, State and local agencies and included documentation of adequate responses to EPA's concerns. Moreover, CARB's August 12, 2009 SIP revision was developed to meet EPA's requests for additional information to aid in our review of the 2007 South Coast AQMP and 2007 State Strategy. We propose that the submitted plan, and related "SIP-based" and "baseline" budgets, were developed through sufficient consultation with Federal, State and local agencies and thereby meet the criterion under 40 CFR 93.118(e)(4)(ii).

Under 40 CFR 93.118(e)(4)(iii), we review a submitted plan to determine whether the budgets are clearly identified and precisely quantified. Both the "SIP-based" and "baseline" budgets are clearly identified. As noted in our May 2008 adequacy/inadequacy determination, the budgets are shown in attachments 1 ("SIP-based" budgets) and 2 ("baseline" budgets) to CARB Resolution 08–27, which was included in the SIP revision submitted by CARB on April 30, 2008. The "SIP-based" budgets are not precisely quantified because the new emission reductions do not result from adequately specified control measures. In contrast, the "baseline" budgets reflect control measures that are already implemented and do not include new emission reductions attributed to general commitments; therefore, these budgets are precisely quantified. We propose that the "SIP-based" budgets do not meet the criterion under 40 CFR 93.118(e)(4)(iii) but the "baseline" budgets do.

Under 40 CFR 93.118(e)(4)(iv), we review a submitted plan to determine whether the budgets, when considered together with all other emissions sources, are consistent with applicable requirements for reasonable further

progress, attainment, or maintenance (whichever is relevant to a given SIP submission). Based on our proposed disapproval of the RFP and attainment demonstrations (*See* sections IV.D and IV.E of this document), EPA proposes that all of the "SIP-based" and the "baseline" budgets, when considered together with all other emission sources, are not consistent with the requirement to demonstrate attainment or RFP of the PM<sub>2.5</sub> NAAQS by 2014.

Because we are proposing to disapprove the RFP demonstrations for years 2009 and 2012, we do encourage CARB to submit revised budgets to lock in the benefit of the new regulations and thereby avoid the chance that increases in vehicle activity will increase the overall challenge of attaining the NAAQS. For the reasons stated above, we propose that the "baseline" and "SIP-based" budgets do not meet the criterion under 40 CFR 93.118(e)(4)(iv).

Under 40 CFR 93.118(e)(4)(v), we review a plan to determine whether the budgets are consistent with and clearly related to the emissions inventory and the control measures in the submitted control strategy plan or maintenance plan. The plan, as supplemented by the SIP revision dated August 12, 2009, does not show a clear relationship between the "SIP-based" budgets and the emissions inventory and control measures. The "SIP-based" budgets incorporate new emission reductions from the State's strategy that result, in part, from specified control measures that have not been adopted in regulatory form (or have been adequately supported as a voluntary measure). As noted above, more control measures have been adopted by CARB in regulatory form than was the case when the "SIP-based" budgets were adopted and submitted by CARB to EPA, but a portion of the emission reductions included in the "SIP-based" budgets remains unsupported by regulations or as a voluntary measure. In contrast, as discussed further in our May 2008 adequacy/inadequacy determination, the plan does show a clear relationship between the "baseline" budgets, control measures, and the total emissions inventory. Thus, we propose that the submitted plan's "SIP-based" budgets do not meet this criterion for adequacy and approval and the "baseline" budgets do.

Under 40 CFR 93.118(e)(4)(vi), we review a submitted plan to determine whether revisions to previously submitted plans explain and document any changes to previously submitted budgets and control measures; impacts on point and area source emissions; any changes to established safety margins; and reasons for the changes (including

the basis for any changes related to emissions factors or estimates of vehicle miles traveled and changes in control measures). As noted in our May 2008 adequacy/inadequacy determination, the SIP revision submitted on April 30, 2008 explains and documents all changes to previously submitted budgets. Thus, we propose that the submitted plan meets this criterion for adequacy and approval with respect to both the "SIP-based" and "baseline" budgets.

Under 40 CFR 93.118(e)(5), we review the State's compilation of public comments and response to comments that are required to be submitted with any SIP revision. As noted in our May 2008 adequacy/inadequacy determination, District compiled public comments submitted during the June 1, 2007 public hearing and during the public comment periods and we reviewed this compilation and found that District's and CARB's responses were acceptable. No issues that might have affected our adequacy findings remain unanswered. Thus, we propose that the plan meets this criterion for adequacy and approval with respect to both the "SIP-based" and "baseline" budgets.

For the reasons described in the May 6, 2008 letter from Deborah Jordan to James Goldstene, we found that the "SIP-based" budgets for the 2007 South Coast AQMP, as submitted on April 30, 2008, do not meet certain adequacy requirements under 40 CFR 93.118(e)(4) and (5) and concluded that they were inadequate for transportation conformity purposes. Now that we have completed a thorough review of the entire South Coast PM<sub>2.5</sub> SIP, which is described above in this proposal, we have concluded that the "SIP-based" budgets are not precisely quantified because the new emission reductions do not result from adequately specified control measures, and that the plan as a whole will not ensure RFP and attainment of the PM<sub>2.5</sub> NAAQS and does not show a clear relationship between the "SIP-based" budgets and the emissions inventory and control measures. Thus, we propose to disapprove both the "baseline" and the "SIP-based" PM<sub>2.5</sub> budgets (shown in Table 11 above) for transportation conformity purposes. SCAG and the U.S. Department of Transportation are not currently using the "SIP-based" budgets in transportation conformity determinations due to the inadequacy finding made in 2008. If the proposed disapproval of the budgets is finalized, then neither the "baseline" nor "SIP-based" budgets could be used in transportation conformity

determinations after the effective date of the disapproval.

In summary, for the reasons discussed above, we are now proposing disapproval of the PM<sub>2.5</sub> budgets that we previously had determined to be inadequate. Because we are proposing to disapprove the RFP demonstration, we are proposing to disapprove the PM<sub>2.5</sub> budgets we previously found adequate as well.

#### *I. Mid Course Review*

Any State that submits to EPA an approvable attainment plan for a PM<sub>2.5</sub> nonattainment area justifying an attainment date of nine or ten years from the date of designation also must submit to EPA a mid-course review six years from the date of designation, or by April 2011. 40 CFR 51.1011. The mid-course review for an area must include: (1) A review of emissions reductions and progress made in implementing control measures to reduce emissions of direct PM<sub>2.5</sub> and PM<sub>2.5</sub> attainment plan precursors contributing to PM<sub>2.5</sub> concentrations in the area; (2) an analysis of changes in ambient air quality data for the area; (3) a revised air quality modeling analysis to demonstrate attainment; (4) any new or revised control measures adopted by the State, as necessary to ensure attainment by the attainment date in the approved SIP of the nonattainment area. We anticipate receiving this midcourse review from the District and CARB by April 2011.

#### **V. EPA's Proposed Actions**

##### *A. EPA's Proposed Approvals and Disapprovals*

For the reasons discussed above, EPA is proposing to approve in part and disapprove in part California's attainment SIP for the South Coast nonattainment area for the 1997 PM<sub>2.5</sub> NAAQS. This SIP submittal consists of the portions of the District's South Coast 2007 AQMP and the South Coast nonattainment area-specific portions of CARB's revised 2007 State Strategy addressing CAA and EPA regulations for attainment of the 1997 PM<sub>2.5</sub> NAAQS for the South Coast nonattainment area.

EPA is proposing to approve under CAA section 110(k)(3) the following elements of the South Coast PM<sub>2.5</sub> attainment SIP:

1. The SIP's base year and baseline emissions inventories as meeting the requirements of CAA section 172(c)(3) and 40 CFR § 51.1008;
2. the District's commitments for the adoption and implementation schedule for specific control measures listed in Table 7–3 in the South Coast 2007

AQMP to the extent that these commitments have not yet been fulfilled, and to achieve specific aggregate emission reductions of 32 tpd of NO<sub>x</sub>, 10 tpd of VOC, 4 tpd of direct PM<sub>2.5</sub>, and 3 tpd of SO<sub>x</sub> by 2014 as listed in Table 4–10 of the South Coast 2007 AQMP and the CARB Staff Report for the South Coast 2007 AQMP, page 17, as SIP-strengthening;

3. CARB's commitments to propose certain defined measures, as listed on page 23 of the 2009 State Strategy Status Report; and to achieve aggregate emission reductions of 152 tpd of NO<sub>x</sub>, 9 tpd of direct PM<sub>2.5</sub>, 46 tpd of VOC, and 20 tpd of SO<sub>x</sub> in the South Coast nonattainment area by 2014 as provided, as SIP-strengthening; and

4. the air quality modeling in the South Coast 2007 AQMP as meeting the requirements of the CAA and EPA guidance.

EPA is proposing to disapprove under CAA section 110(k)(3) the following elements of the South Coast PM<sub>2.5</sub> attainment SIP:

1. The attainment demonstration for failing to meet the requirements of CAA section 172(c)(1) and 40 CFR 51.1007 due to insufficient adopted and EPA-approved rules needed to support the determination that the South Coast nonattainment area will attain by the State's proposed attainment date. As a result, we are also proposing to disapprove the RACM/RAC<sub>T</sub> demonstration, the State's request for an attainment date extension to April 5, 2015, and the RFP demonstration, because they are dependent on the approval of an attainment demonstration under the PM<sub>2.5</sub> implementation rule (See 40 CFR 51.1009, 51.1010, and 51.1004);

2. The motor vehicle emissions budgets for the RFP milestone years of 2009 and 2012, and for the attainment year, because they are derived from RFP and attainment demonstrations which we are proposing to disapprove;

3. The contingency measures for failing to meet the requirements of CAA section 172(c)(9) and 40 CFR 51.1012; and

4. The assignment of 10 tpd of NO<sub>x</sub> to the federal government.

##### *B. CAA Consequences of a Final Disapproval*

EPA is committed to working with the District, CARB and SCAG to resolve the identified problems that make the current South Coast 2007 AQMP for the South Coast nonattainment area for the 1997 PM<sub>2.5</sub> NAAQS not fully approvable under the CAA. We firmly believe that such solutions are available and that expeditious attainment of the 1997

PM<sub>2.5</sub> standards in the South Coast is achievable.

However, should we finalize the disapprovals as proposed here, a conformity freeze would take effect once the action becomes effective (usually 30 days after publication of the final action in the **Federal Register**). A conformity freeze means that only projects in the first four years of the most recent conforming Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) can proceed. During a freeze, no new RTPs, TIPs or RTP/TIP amendments can be found to conform. See 40 CFR 93.120.

In addition to the effect on conformity, should we finalize the disapprovals proposed here, the offset sanction in CAA section 179(b)(2) would apply in the South Coast PM<sub>2.5</sub> nonattainment area 18 months after the effective date of a final disapproval. The highway funding sanctions in CAA section 179(b)(1) would apply in the area six months after the offset sanction is imposed. Neither sanction will be imposed if California submits and we approve prior to the implementation of the sanctions, SIP revisions that correct the problems identified in EPA's final action on the South Coast 2007 AQMP and applicable portions of the revised 2007 State Strategy that are the basis for any disapprovals.

In addition to the sanctions, CAA section 110(c)(1) provides that EPA must promulgate a federal implementation plan addressing the deficient elements in the PM<sub>2.5</sub> attainment SIP for the South Coast, two years after the effective date of any disapproval should we not be able to approve a revised SIP revision before that date.

## VI. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely proposes to partially approve and partially disapprove state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law.

### A. Executive Order 12866, Regulatory Planning and Review

This action is not a "significant regulatory action" under the terms of Executive Order (EO) 12866 (58 FR

51735, October 4, 1993) and is therefore not subject to review under the EO.

### B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, because this proposed SIP disapproval under section 110 and subchapter I, part D of the Clean Air Act will not in-and-of itself create any new information collection burdens but simply disapproves certain State requirements for inclusion into the SIP. Burden is defined at 5 CFR 1320.3(b).

### C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant impact on a substantial number of small entities. This rule does not impose any requirements or create impacts on small entities. This proposed SIP disapproval under section 110 and subchapter I, part D of the Clean Air Act will not in-and-of itself create any new requirements but simply disapproves certain State requirements for inclusion into the SIP. Accordingly, it affords no opportunity for EPA to fashion for small entities less burdensome compliance or reporting requirements or timetables or exemptions from all or part of the rule. The fact that the Clean Air Act prescribes that various consequences (e.g., higher offset requirements) may or will flow from this disapproval does not mean that EPA either can or must conduct a regulatory flexibility analysis for this action. Therefore, this action will not have a significant economic

impact on a substantial number of small entities.

We continue to be interested in the potential impacts of this proposed rule on small entities and welcome comments on issues related to such impacts.

### D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538 for State, local, or tribal governments or the private sector." EPA has determined that the proposed disapproval action does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This action proposes to disapprove pre-existing requirements under State or local law, and imposes no new requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

### E. Executive Order 13132, Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely disapproves certain State requirements for inclusion into the SIP and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, Executive Order 13132 does not apply to this action.

### F. Executive Order 13175, Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP EPA is proposing

to disapprove would not apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

*G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks*

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997). This proposed SIP disapproval under section 110 and subchapter I, part D of the Clean Air Act will not in-and-of itself create any new regulations but simply disapproves certain State requirements for inclusion into the SIP.

*H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution, or Use*

This proposed rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

*I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

The EPA believes that this action is not subject to requirements of Section 12(d) of NTTAA because application of those requirements would be inconsistent with the Clean Air Act.

*J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing,

as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA lacks the discretionary authority to address environmental justice in this proposed action. In reviewing SIP submissions, EPA’s role is to approve or disapprove state choices, based on the criteria of the Clean Air Act. Accordingly, this action merely proposes to disapprove certain State requirements for inclusion into the SIP under section 110 and subchapter I, part D of the Clean Air Act and will not in-and-of itself create any new requirements. Accordingly, it does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898.

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

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

Dated: November 8, 2010.

**Jared Blumenfeld,**

*Regional Administrator, EPA Region IX.*

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