

**ENVIRONMENTAL PROTECTION  
AGENCY**
**40 CFR Part 52**
**[EPA-R09-OAR-2009-0366; FRL-9435-1]**
**Approval and Promulgation of  
Implementation Plans; California; 2007  
South Coast PM<sub>2.5</sub> Plan and 2007 State  
Strategy**
**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 California to provide for attainment of the 1997 fine particulate matter (PM<sub>2.5</sub>) national ambient air quality standards in the Los Angeles-South Coast area (South Coast). These SIP revisions are the South Coast 2007 Air Quality Management Plan (South Coast 2007 AQMP) (revised 2011) and South Coast-related provisions of the 2007 State Strategy (revised 2009 and 2011). EPA is proposing to approve the emissions inventories; air quality modeling; reasonably available control measures/reasonably available control technology demonstration; the reasonable further progress and attainment demonstrations; and the transportation conformity motor vehicle emissions budgets. EPA is also proposing to grant California's request to extend the attainment deadline for the South Coast to April 5, 2015 and to approve commitments to measures and reductions by the South Coast Air Quality Management District and the California Air Resources Board. Finally, we are proposing to disapprove the SIP's contingency measures and to reject the assignment of 10 tpd of NO<sub>x</sub> reductions to the federal government. This proposed rule amends EPA's November 22, 2010 proposed rule (75 FR 91294) on the South Coast PM<sub>2.5</sub> plan and 2007 State strategy.

**DATES:** Any comments must arrive by August 15, 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 online 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 9, 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 9, 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, 1001 I 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 9, (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. CARB 2007 State Strategy
  3. CARB 2009 State Strategy Status Report
  4. Additional 2008 SIP Submittal Related to Motor Vehicle Emissions Budgets
  5. CARB 2011 Progress Report
  6. Revisions to the 2007 PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley
- B. CAA Procedural Requirements for SIP Submittals
- III. EPA's 2010 Proposed Action on the South Coast PM<sub>2.5</sub> SIP
- IV. CAA and Regulatory Requirements for PM<sub>2.5</sub> Attainment SIPs
- V. Review of the South Coast 2007 AQMP and the South Coast Portion of the Revised 2007 State Strategy
  - A. Emission Inventories
    1. Requirements for Emission Inventories
    2. Emission Inventories in the South Coast 2007 AQMP
    3. Proposed Action on the Emission Inventories
  - B. 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 South Coast 2007 AQMP and the 2007 State Strategy
      - 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
  - C. 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 Commitment Represents 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
  - D. Reasonable Further Progress Demonstration
    1. Requirements for Reasonable Further Progress
    2. Reasonable Further Progress Demonstration in the South Coast 2007 AQMP
    3. Proposed Action on the RFP Demonstration
  - E. Contingency Measures
    1. Requirements for Contingency Measures
    2. Contingency Measures in the South Coast 2007 AQMP
    3. Proposed Action on the Contingency Measures
  - F. Motor Vehicle Emissions Budgets for Transportation Conformity

1. Requirements for Transportation Conformity
  2. Budgets in the South Coast 2007 AQMP and Additional 2008 Submittal
  3. EPA's 2008 Adequacy/Inadequacy Finding
  4. Updated Motor Vehicle Emissions Budgets in the 2011 Progress Report and Additional Revisions
  5. Proposed Action on the Revised Updated Budgets in the 2011 Progress Report
  6. Proposed Action on the Trading Mechanism
- VI. EPA's Proposed Actions and Consequences
- A. EPA's Proposed Approvals and Disapprovals
  - B. CAA Consequences of a Final Disapproval
- VII. 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 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) based on a 3-year average of annual mean PM<sub>2.5</sub> concentrations, and 24-hour (daily) standards of 65  $\mu\text{g}/\text{m}^3$  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 oxides (SO<sub>x</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 Clean Air Act (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 or SCAQMD).

Ambient 24-hour PM<sub>2.5</sub> levels in the South Coast are well below the 1997 PM<sub>2.5</sub> NAAQS. Ambient annual PM<sub>2.5</sub> levels are improving but are still above the federal NAAQS. The design value monitor at Mira Loma recorded a value of 16.8  $\mu\text{g}/\text{m}^3$  for the 2008–2010 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>

<sup>1</sup> On October 17, 2006, EPA strengthened the 24-hour PM<sub>2.5</sub> NAAQS by lowering the level to 35  $\mu\text{g}/\text{m}^3$ . At the same time, we retained the level of the annual PM<sub>2.5</sub> standard at 15.0  $\mu\text{g}/\text{m}^3$ . 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  $\mu\text{g}/\text{m}^3$  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  $\mu\text{g}/\text{m}^3$  and annual standards of 15  $\mu\text{g}/\text{m}^3$  as codified in 40 CFR 50.7.

<sup>2</sup> See the Air Quality Subsystem (AQS) Preliminary Design Value Report dated April 21, 2011 in the docket for today's action. 16.8  $\mu\text{g}/\text{m}^3$  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)). This design value is based on 2008 and 2009 data that are complete, validated, and certified by the District and on 2010 data that are complete and validated but not yet certified by the District.

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, page 2–13.

### 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

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 six 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).

In addition to these submittals, the District and State have also submitted numerous rules that contribute to improving air quality in the South Coast nonattainment area. See Appendices A and B of the technical support document (TSD) for this proposal.

#### 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

<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). Our 2009 final action was challenged in the Ninth Circuit Court of Appeals, which published an opinion remanding certain aspects of EPA's action for further action consistent with the opinion. See *Association of Irrigated Residents v. EPA*, 632 F.3d 584 (9th Cir. 2011). The issues in dispute relate to the consequences of an

Plan was adopted by the District on June 1, 2007 and submitted to CARB on October 24, 2007.<sup>4</sup> The South Coast 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 reasonable further progress (RFP); a modeled attainment demonstration; a demonstration of reasonably available control measures/ reasonably available control technology (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, although all controls necessary for attainment by that date will be in place by the attainment year of 2014.<sup>5</sup> The South Coast 2007 AQMP submittal also includes District Governing Board Resolution 07–9 adopting the final South Coast 2007 AQMP.

## 2. CARB 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 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

EPA disapproval of a SIP submittal, the adequacy of EPA's evaluation of a particular control measure from the 2003 State Strategy, and the rationale for EPA's approval of the State's submittal as meeting the requirements of CAA section 182(d)(1)(A) (TCMs to offset growth in emissions from growth in VMT) in the South Coast. EPA has sought rehearing on some of the issues, and the mandate in this case has not yet been issued pending action by the court on the petition for rehearing.

<sup>4</sup> See letter, James N. Goldstene, Executive Officer, CARB, to Jared Blumenfeld, Regional Administrator, EPA Region 9, September 15, 2010, with enclosures.

<sup>5</sup> While the applicable attainment date for PM<sub>2.5</sub> areas with a full five-year extension is April 5, 2015, reductions must be implemented by 2014 to achieve attainment by that date. See 40 CFR 51.1007(b). We, therefore, refer 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. Goldstene, Executive Officer, CARB, to Wayne Nastri, Regional Administrator, EPA Region 9, November 16, 2007 with enclosures.

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.

## 3. CARB 2009 State Strategy Status Report

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 South Coast 2007 AQMP and 2007 State Strategy and its revisions (including the 2011 revisions described below) that are relevant for attainment of the 1997 PM<sub>2.5</sub> standards in the South Coast nonattainment area.

## 4. Additional 2008 SIP Submittal Related to Motor Vehicle Emissions 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 year. The CARB Governing Board approved Resolution 08–27 itemizing the modifications to the South Coast nonattainment area transportation conformity emission budgets. The revised motor vehicle emissions budgets were submitted as an amendment to the

<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. Goldstene, 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.

California SIP on April 30, 2008 and were amended as part of the 2011 Progress Report discussed below. We are acting on the budgets as amended in 2011 today.

## 5. CARB 2011 Progress Report

On May 18, 2011, CARB submitted the "Progress Report on Implementation of PM<sub>2.5</sub> State Implementation Plans (SIP) for the South Coast and San Joaquin Valley Air Basins and Proposed SIP Revisions", dated March 29, 2011, and adopted April 28, 2011 ("2011 Progress Report").<sup>9</sup> This submittal, which updates both the 2007 State Strategy and the South Coast 2007 AQMP, shows that both CARB and the District have made significant progress in meeting their commitments to adopt measures and to reduce emissions. More specifically, it updates CARB's rulemaking calendar in the 2007 State Strategy to reflect the current status of CARB's adopted PM<sub>2.5</sub> measures and to change the expected action dates for several measures. It also updates the RFP demonstration, contingency measures, and transportation conformity motor vehicle emissions budgets in the South Coast 2007 AQMP to reflect rule adoption, changes to activity and emissions factors for certain source categories, and the impact on projected emissions levels in the South Coast nonattainment area of the recent economic recession.<sup>10</sup>

## 6. Revisions to the 2007 PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley

Also, on May 19, 2011, CARB submitted a SIP revision entitled "Revisions to the 2007 PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley (SIP Revisions)". These SIP revisions provide revised control measure commitments, a revised rule implementation schedule, and a partial backstop for the 10 tpd NO<sub>x</sub> federal assignment for the South Coast 2007 AQMP.<sup>11</sup> For the purposes of today's

<sup>9</sup> See CARB Board Resolution 11–24, May 18, 2011 and letter, James N. Goldstene, Executive Officer, CARB to Jared Blumenfeld, Regional Administrator, EPA Region 9, May 19, 2011 with enclosures. Only Appendices B, C and D of the 2011 Progress Report are submitted as a SIP revision. The balance of the report is for informational purposes only.

<sup>10</sup> On June 20, 2011, CARB posted to its Web site technical revisions to the updated motor vehicle emissions budgets (budgets) in the 2011 Progress Report. See <http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm>. We discuss these revisions in the section on budgets below.

<sup>11</sup> See letter, Lynn Terry, Deputy Executive Officer, CARB, to Jared Blumenfeld, Regional

proposal, we will refer to this SIP revision as “2011 Progress Report, Appendix F”, since it was included as an Appendix to the 2011 Progress Report submitted on May 18, 2011.

In today’s proposal, we are only evaluating those portions of the South Coast 2007 AQMP and the 2007 State Strategy and its revisions that are relevant for attainment of the PM<sub>2.5</sub> standards in the South Coast nonattainment area.

Future references in this proposal to the AQMP and the 2007 State Strategy will be to the AQMP as revised in 2011 and the Strategy as revised in 2009 and 2011, respectively, unless otherwise noted.

#### *B. CAA Procedural 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 an opportunity for a public hearing was provided 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. CARB also provided the required public notice, opportunity for public comment, and a public hearing prior to its April 28, 2011 adoption of the 2011 Progress Report. See CARB Resolution 09–34 and CARB Executive Order S–11–010.

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 find, therefore, that the four submittals that comprise the South Coast PM<sub>2.5</sub> Plan 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. We determined that the 2011 Progress Report was complete on June 13, 2011.<sup>12</sup>

#### **III. EPA’s 2010 Proposed Action on the South Coast PM<sub>2.5</sub> SIP**

This is the second time EPA has proposed action on California’s SIP to address attainment of the 1997 PM<sub>2.5</sub> standards in the South Coast nonattainment area. On November 22, 2010 (75 FR 71294), EPA proposed to approve in part and disapprove in part the 2007 South Coast PM<sub>2.5</sub> plan and the related portions of the 2007 State Strategy as amended in 2009.

Specifically, we proposed to approve the emissions inventories as meeting the applicable requirements of the CAA and the PM<sub>2.5</sub> implementation rule in 40 CFR part 51, subpart Z. We proposed to approve the District’s and CARB’s commitments to specific measures and specific aggregate emissions reductions in these SIP revisions because their approval would strengthen the SIP. We also proposed to approve the air quality modeling.

We previously proposed to disapprove the attainment demonstration as not meeting the applicable requirements of the CAA and the PM<sub>2.5</sub> implementation rule because it relied too extensively on enforceable commitments to reduce emissions in place of fully-adopted and submitted rules. Based on this proposed disapproval, we also proposed to

disapprove the RACM/RACT and RFP demonstrations. We also proposed to disapprove the related contingency measures and transportation conformity motor vehicle emissions budgets for the RFP milestone years 2009 and 2012 and the attainment year of 2014. Finally, we proposed not to grant the State’s request to extend the attainment date for the PM<sub>2.5</sub> NAAQS in the South Coast nonattainment area to April 5, 2015.

During the comment period for the November 2010 proposal, we received four comment letters from the public as well as comment letters from CARB and the District. Subsequent to the close of the comment period, CARB adopted and submitted revisions to the South Coast 2007 AQMP and 2007 State Strategy. After considering information contained in the comment letters and these supplemental SIP submittals, we have substantially amended our November 2010 proposed action as described below. EPA will consider all significant comments submitted in response to both its November 2010 proposal and today’s proposal before taking final action on the South Coast 2007 AQMP. However, EPA strongly encourages those who submitted comments on the November 2010 proposal to submit revised comments reflecting today’s amended proposal during the comment period on this amended proposal.

#### **IV. 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 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

Administrator, EPA Region 9, dated May 19, 2011, and enclosed ARB Board Resolution 11–24.

<sup>12</sup> See letter, Deborah Jordan, EPA Region 9, to James Goldstene, CARB, dated June 13, 2011 in the docket for today’s action.

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>13</sup> We will discuss each of these CAA and regulatory requirements for attainment plans in more detail below.

**V. Review of the South Coast 2007 AQMP and the South Coast Portion of the 2007 State Strategy**

We summarize our evaluation of the South Coast PM<sub>2.5</sub> plan’s compliance with applicable CAA and EPA regulatory requirements below. Our detailed evaluation can be found in the TSD for this proposal, which is available on line at <http://www.regulations.gov> in docket number EPA–R09–OAR–2009–0366, or from the EPA contact listed at the beginning of this notice.

**A. Emissions Inventories**

**1. Requirements for Emissions Inventories**

CAA section 172(c)(3) requires states to submit a plan revision that includes

“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>14</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).

Baseline emissions inventories are required for the attainment demonstration and for meeting RFP requirements. As determined on the date of designation, the base year for these inventories should be the most recent calendar year for which a complete inventory was required to be submitted to EPA. The 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 base year and future year 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 Appendix III of the South Coast 2007 AQMP. Average annual day baseline inventories are provided for the plan’s base year of 2002 (the reference year for the RFP demonstration) as well as 2005, 2008, 2010, 2011, and 2014. The base year and baseline inventories incorporate reductions from federal, state, and District measures adopted prior to 2007. 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 base year of 2002 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 2002 BASELINE YEAR**

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

Emissions inventory category	NO <sub>x</sub> 2002	VOC 2002	PM <sub>2.5</sub> 2002	SO <sub>x</sub> 2002	NH <sub>3</sub> <sup>b</sup> 2005
Stationary/Areawide Sources .....	93	302	60	22	75
On-road Mobile Sources .....	628	362	18	4	29
Off-road Mobile Sources .....	372	180	21	27	n/a

<sup>13</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. On April 25, 2011, EPA granted the petition with respect to the first and third issues, but denied the petition with respect to the second issue given that the deferral period for CPM emissions limits had already ended. Letter, Lisa P. Jackson, EPA, to Paul Cort, EarthJustice, April 25, 2011. EPA intends to publish in the **Federal Register** notice that will announce the granting of the latter petition with respect to certain issues and to initiate a notice and comment process

to consider proposed changes to the 2007 PM<sub>2.5</sub> implementation rule.

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. This limited deferral does not affect the South Coast 2007 AQMP’s RACM/RACT and expeditious attainment demonstrations. EPA will evaluate any rule adopted or revised by the District after January 1, 2011 to assure that it appropriately addresses CPM.

<sup>14</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.

TABLE 1—SOUTH COAST NONATTAINMENT AREA EMISSIONS INVENTORY SUMMARY FOR PM<sub>2.5</sub> AND PM<sub>2.5</sub> PRECURSORS FOR THE 2002 BASELINE YEAR—Continued  
[Annual average day emissions in tons per day]<sup>a</sup>

Emissions inventory category	NO <sub>x</sub> 2002	VOC 2002	PM <sub>2.5</sub> 2002	SO <sub>x</sub> 2002	NH <sub>3</sub> <sup>b</sup> 2005
Total .....	1093	844	99	53	104

<sup>a</sup> Source: 2007 AQMP, pp. 3–9 and 3–14, Tables 3–1A and 3–3A. Numbers may not add due to rounding. Ammonia emissions estimates were updated to 2005 by SCAQMD.

<sup>b</sup> NH<sub>3</sub> numbers were not provided for 2002.

As a starting point for the South Coast 2007 AQMP's inventories, the District used CARB's inventory for the year 2002. 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 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, 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>15</sup>

When CARB submitted the 2011 Progress Report, the revised attainment demonstration for the South Coast was based on the 2002 baseline inventory. This is consistent with the baseline inventory in the 2007 AQMP, as well as the base year for the RFP demonstration. It is also the year recommended by EPA guidance.<sup>16</sup>

### 3. Proposed Action on the Emission Inventories

The inventories in the South Coast 2007 AQMP are based on the most current and accurate information available to the State and District at the time the Plan was developed and submitted (including using the latest EPA-approved version of California's mobile source emissions model, EMFAC2007), address comprehensively all source categories in the South Coast nonattainment area, and are consistent with EPA's inventory guidance. For these reasons, EPA is proposing to approve the 2002 base year emissions inventory in the South Coast 2007 AQMP as meeting the requirements of

CAA section 172(c)(3) and 40 CFR 51.1008(a)(1) and to find that the baseline inventories in the South Coast 2007 AQMP provide an adequate basis for the RACM/RACT, RFP, and attainment demonstrations. We provide more detail on our review of the base year inventory as well as the projected year inventories in section II.A. of the TSD.

Since late 2007, California has experienced an economic recession that has greatly reduced current levels of economic activity in the State's construction and goods movement sectors. The recession has resulted in lowered projected future levels of activity in this sector. 2011 Progress Report, Appendix E. As a result, projected emission levels from these categories are now substantially lower than the levels projected for 2008 and later in the Plan as submitted in 2007. At this time, California is addressing these recession impacts on future economic activity through adjustments to the baseline inventories for specific source categories. See 2011 Progress Report, Appendix E, page 2. There are no recession-related adjustments to the 2002 base year inventory in the South Coast 2007 AQMP.

CARB also made technical changes to the inventories for diesel trucks, buses, and certain categories of off-road mobile source engines as part of its December 2010 rulemaking amending the In-Use On-Road Truck and Bus Rule and the In-Use Off-Road Engine rule. *Id.* The State estimates that these changes collectively reduce the 2002 base year total inventory in the South Coast by 4 percent for NO<sub>x</sub> and 5 percent for PM<sub>2.5</sub>.<sup>17</sup> These changes are small given the normal and unavoidable uncertainties in all emissions inventories, and therefore, do not change our basis for proposing to approve the base year inventory or to find the baseline inventories adequate

for SIP planning purposes. We discuss the impact of these changes on the plan's RFP and attainment demonstrations later in this notice.

We note that the District and CARB are currently working on revisions to the South Coast AQMP to address the 2006 24-hour PM<sub>2.5</sub> standards. These revisions are due to EPA in December 2012 and will include the most current inventory information that is available.

### B. 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).

Consistent with subpart 1 of Part D of the CAA, EPA is requiring a combined approach to RACM and RACT for PM<sub>2.5</sub> attainment plans. Subpart 1, unlike subparts 2 and 4, does not identify specific source categories for which EPA must issue control technology documents or guidelines for what constitutes RACT, 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

<sup>15</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.

<sup>16</sup> See 72 FR 20586, at 20647.

<sup>17</sup> See Attachment 1 to the letter, Lynn Terry, Deputy Executive Officer, CARB, to Elizabeth Adams, Deputy Director, Air Division, US EPA Region 9, dated May 18, 2011 ("CARB Progress Report supplement"), in the docket for today's proposal.

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, EPA determined not only 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.

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 its specific nonattainment area. 40 CFR 51.1010. In addition, the rule requires that the state, in determining whether a particular emissions reduction measure or set of measures must be adopted as 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. *Id.* 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 72 FR 20586, at 20609–20633 and in section II.D. of the TSD for this proposal.

## 2. RACM/RACT Demonstration in the South Coast 2007 AQMP and the 2007 State Strategy

For the South Coast 2007 AQMP and the 2007 State Strategy, the District, CARB and the local agency (through the South Coast's metropolitan planning organization (MPO), the Southern California Association of Governments (SCAG)), each undertook a process to identify and evaluate potential reasonably available control measures that could contribute to expeditious attainment of the PM<sub>2.5</sub> standards in the

South Coast nonattainment area. These RACM/RACT analyses address control measures for sources of direct PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>x</sub>, and VOC, which are the State's selected attainment plan precursors for the 1997 PM<sub>2.5</sub> standards in the South Coast (see section V.C.3 below). We describe each agency's efforts 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 Surplus Off-Road Opt-In for NO<sub>x</sub> (SOON) program and the Carl Moyer program.<sup>18 19</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 suggested for consideration 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 District evaluated the remaining measures 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 proposes to find that the District's current rules and regulations are equivalent to, or more stringent than, those developed by other air districts with respect to emissions of PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors. 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 which comprised 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 that they would potentially generate. See South Coast 2007 AQMP, Appendix VI, page VI–7. Since submittal of the AQMP in 2007, the District has completed action on the majority of

<sup>18</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.

<sup>19</sup> The SOON program provides funding assistance to applicable fleets for the purchase of commercially-available low-emission heavy-duty engines to achieve near-term reduction of NO<sub>x</sub> emissions from in-use off-road diesel vehicles. All large fleets with a total statewide equipment horsepower (hp) over 20,000 hp must apply for funding. Fleets below 20,000 hp may voluntarily participate in this program.

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.

In addition to the rules adopted for the 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: 10.8 tpd NO<sub>x</sub>, 10.4 tpd VOC, 2.9 tpd direct PM<sub>2.5</sub> and 2.9 tpd SO<sub>x</sub>.<sup>20</sup> See 2011 Progress Report, Appendix E, Table 1. 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 AQMP (see South Coast 2007 AQMP, page 4–10 and CARB Staff Report on South Coast 2007 AQMP, p. 18), as updated in the 2011 Progress Report, Appendix E, Tables 2 through 5 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 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, and commercial cooking. 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 many of the rules in the South Coast 2007 AQMP 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. Table 3 below summarizes the status of these new rules.

TABLE 2—SOUTH COAST  
[Annual average day emissions in tons per day]<sup>a</sup>

Pollutant	SIP commitment by 2014		
	Commitment	Achieved	Balance
VOC .....	10.4	14.4	+4.0
NO <sub>x</sub> .....	10.8	7.60	–3.2
PM <sub>2.5</sub> .....	2.9	1.00	–1.9
SO <sub>x</sub> .....	2.9	4.01	+1.11

Source: 2011 Progress Report, Appendix F, Table 1. The “Achieved” column in Table 2 reflects District rules submitted to EPA. Table 3 reflects emissions reductions EPA can credit towards the attainment demonstration.

TABLE 3—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>	SIP status
BCM–03 ....	445	Woodburning fireplaces and wood stoves ..	1.0 tpd PM <sub>2.5</sub> .....	1.0 tpd PM <sub>2.5</sub> ; 0.44 tpd VOC; 0.06 tpd NO <sub>x</sub> ; 0.01 tpd SO <sub>x</sub> .....	74 FR 27716, 6/11/09.
BCM–05 ....	1138	Underfired charbroilers .....	1.1 tpd PM <sub>2.5</sub> .....	.....	66 FR 36170, 7/11/2001.
CTS–01 .....	1144	Metalworking fluids and direct-contact lubricants.	1.9 tpd VOC .....	3.9 tpd VOC .....	75 FR 40726, 07/14/10.
CMB–01 ....	1147	NO <sub>x</sub> reductions from miscellaneous sources.	3.5 tpd NO <sub>x</sub> .....	3.5 tpd NO <sub>x</sub> .....	75 FR 46845, 08/04/10.
CMB–02 ....	2002	Further SO <sub>x</sub> reductions from RECLAIM .....	2.9 tpd SO <sub>x</sub> .....	4.0 tpd SO <sub>x</sub> .....	76 FR 30896, 5/27/11.
FUG–02 ....	461	Emissions Reductions from Gasoline Transfer and Dispensing Facilities.	3.7 tpd VOC .....	VOC reductions substituted by Rule 1143.	71 FR 18216, 4/11/06.
FUG–04 ....	1149	Storage Tank and Pipeline Cleaning and Degassing.	None .....	0.04 tpd VOC .....	74 FR 67821, 12/21/09.
CMB–03 ....	1111	Further NO <sub>x</sub> reductions from space heaters	0.8 tpd NO <sub>x</sub> .....	0.01 tpd NO <sub>x</sub> .....	75 FR 46845, 8/4/10.

<sup>20</sup> CARB uses the term ROG (reactive organic gases) where we use the term VOC (volatile organic

compounds). We will use the term VOC in this notice to refer to both ROG and VOC.



TABLE 3—STATUS OF DISTRICT SHORT- AND INTERMEDIATE-TERM CONTROL MEASURES CREDITED IN SOUTH COAST 2007 AQMP ATTAINMENT DEMONSTRATION—Continued

Control measure	Rule No.	Title	Emissions reduction commitment in South Coast 2007 AQMP	Emissions reductions achieved <sup>a</sup>	SIP status
MCS-01 ....	1110.2	Liquid and gaseous fuels—stationary ICEs	.....	0.6 tpd NO <sub>x</sub> ; 0.3 tpd VOC.	74 FR 18995, 4/27/09.
FLX-02 .....	.....	Refinery pilot program .....	0.7 tpd VOC; 0.4 tpd PM <sub>2.5</sub> .	VOC reductions substituted by Rule 1143.	
MOB-05 ....	2251	AB923 LDV high emitter program .....	0.8 tpd VOC; 0.4 tpd NO <sub>x</sub> .	.....	No rule associated with this measure.
MOB-06 ....	.....	AB923 MDV high emitter program .....	0.5 tpd VOC; 0.5 tpd NO <sub>x</sub> .	.....	No rule associated with this measure.

Measures Proposed for EPA Action or Soon to be Proposed for EPA Action

MCS-05 ....	1127	Livestock waste .....	0.8 tpd VOC.	.....	Proposed limited approval/limited disapproval signed June 21, 2011.
MCS-01 ....	1146	NO <sub>x</sub> from industrial, institutional, & commercial boilers, steam generators, and process heaters.	1.2 tpd NO <sub>x</sub> ; 0.4 tpd PM <sub>2.5</sub> ; 2.0 tpd VOC.	.....	
MCS-01 ....	1146.1	NO <sub>x</sub> from small ind, inst, & comm'l boilers, steam gens, and proc. Htrs.	.....	.....	Proposed limited approval/limited disapproval signed June 21, 2011.
CTS-04 .....	1143	Consumer Paint Thinners and Multi-Purpose Solvents.	2.1 tpd VOC .....	9.7 tpd VOC .....	Proposed approval signed June 23, 2011.

SIP Commitment vs. SIP-Creditable Emissions Reductions

SIP commitment—PM <sub>2.5</sub> .....	2.9 tpd ...	Total SIP-creditable PM <sub>2.5</sub> reductions .....	1.2 tpd.
SIP commitment—NO <sub>x</sub> .....	10.8 tpd ..	Total SIP-creditable NO <sub>x</sub> reductions .....	4.2 tpd.
SIP commitment—VOC .....	10.4 tpd ..	Total SIP-creditable VOC reductions .....	14.4 tpd.
SIP commitment—SO <sub>x</sub> .....	2.9 tpd ...	Total SIP-creditable SO <sub>x</sub> reductions .....	4.01 tpd.

<sup>a</sup>From 2011 Progress Report, Appendix F, Tables 2–5. EPA can only credit rules that have been adopted, submitted to EPA, and approved for credit in the SIP.

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.

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. 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.

California’s emissions 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.

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 Plan’s baseline inventories, fall into two categories: Measures that are subject to a waiver of Federal pre-emption 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).

EPA allows emission reduction credit for measures that are granted a waiver from Federal preemption through the CAA section 209 waiver process. See section II.F.4.a.i. of the TSD and EPA’s final approval of the San Joaquin Valley 1-Hour Ozone Plan at 75 FR 10420, 10424 (March 8, 2010). Generally, the State’s baseline non-waiver measures have been approved by EPA into the SIP and are fully creditable for meeting CAA requirements. See TSD, Appendix A.

CARB developed its proposed 2007 State Strategy after an extensive public consultation process to identify potential SIP measures.<sup>21</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

<sup>21</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>.

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 through both regulations and incentive programs. See Appendix A of the TSD. Table 4 below lists the defined measures in the 2007 State Strategy and their current adoption and approval

status. Table 5 provides the State's current estimate of the emissions reductions in the South Coast nonattainment area from these measures.

TABLE 4—2007 STATE STRATEGY DEFINED MEASURES SCHEDULED FOR CONSIDERATION AND CURRENT STATUS (UPDATED APRIL 2011)

State measure	Expected action year	Current status
<b>Defined Measures in 2007 State Strategy</b>		
Smog Check Improvements .....	2007–2009 .....	Elements approved 75 FR 38023 (July 1, 2010). <sup>22</sup>
Expanded Vehicle Retirement (AB118) .....	2007 .....	Adopted CARB June 2009; Bureau of Automotive Repair September 2010.
Modifications to Reformulated Gasoline Program .....	2007 .....	Approved, 75 FR 26653 (May 2, 2010).
Cleaner In-use Heavy Duty Trucks .....	2007, 2008, 2010 .....	Proposed approval signed June 29, 2011.
Auxiliary Ship Cold Ironing and Other Clean Technologies.	2007–2008 .....	Adopted December 2007.
Cleaner Main Ship Engines and Fuels .....	Fuel: 2008–2011 .....	Proposed approval signed June 29, 2011.
	Engines: 2008 .....	
Port Truck Modernization .....	2007, 2008, 2010 .....	Adopted December 2007 and December 2008.
Accelerated Introduction of Cleaner Locomotives .....	2008 .....	Implementation 2012.
Clean Up Existing Harbor Crafts .....	2007, 2010 .....	Adopted November 2007, revised June 2010.
Cleaner In-Use Off-Road Engines .....	2007, 2010 .....	Waiver action pending.
New Emissions Standards for Recreational Boats .....	2013 .....	Partial adoption, July 2008; additional action expected 2013.
Expanded Off-Road Recreational Vehicle Emissions Standards.	2013 .....	Adopted November 2008; additional action expected 2013.
Enhanced Vapor Recovery for Above Ground Storage Tanks.	2008.	
Additional evaporative emissions standards .....	2009, 2013.	
Consumer Products Program (I and II) .....	2008, 2009, 2011 .....	Phase I approved November 4, 2009, 74 FR 57074; Phase II approved May 12, 2011, 76 FR 27613.

Sources: 2009 State Strategy Update, p. 23 and 2011 Progress Report, Table 1, p. 8. Additional information from <http://www.ca.arb.gov>.

TABLE 5—CURRENTLY CREDITABLE EMISSIONS REDUCTIONS FROM DEFINED MEASURES IN THE 2007 STATE STRATEGY FOR THE SOUTH COAST, AS REVISED APRIL 2011 (TONS PER DAY 2014)

State measure	Direct PM <sub>2.5</sub>	NO <sub>x</sub>	VOC	SO <sub>x</sub>
Smog Check Improvements (BAR) .....	0.3	2.6	8.6	0
Cleaner In-Use Heavy-Duty Trucks .....	2.6	18.6	3.3	0
Cleaner In-Use Off-Road Equipment (> 25 hp) .....	0	0.5	0.1	0
Ship Auxiliary Engine Cold Ironing & Clean Tech. ....	0.1	8.1	0.2	0.3
Cleaner Main Ship Engines and Fuel—Main Engines .....	3.5	17.6	0.5	37
Clean Up Existing Harbor Craft .....	0.2	4.1	0.1	0

Source: 2011 Progress Report, Appendix E, pp. 2 and 3. Only defined measures with direct PM<sub>2.5</sub>, VOC, SO<sub>x</sub> and/or NO<sub>x</sub>, reductions in the South Coast are shown here.

In addition to the State's commitments to propose defined new measures, the 2007 State Strategy includes an enforceable commitment for emissions reductions sufficient, in combination with existing measures and the District's commitments, to attain the PM<sub>2.5</sub> NAAQS in the South Coast nonattainment area by the requested attainment date of April 5, 2015. For the South Coast, these emission reductions commitments are 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 nature of this commitment is described in the State Strategy as follows:

“The total emission reductions from the new measures necessary to attain the federal standards are an enforceable State commitment in the SIP. While the proposed State Strategy includes estimates of the emission reductions from each of the individual new measures, it is important to note that the commitment of the State

Strategy is to achieve the total emission reductions necessary to attain the federal standards, which would be the aggregate of all existing and proposed new measures combined. Therefore, if a particular measure does not get its expected emission reductions, the State still commits to achieving the total aggregate emission reductions, whether this is realized through additional reductions from the new measures or from alternative control measures or incentive programs. If actual emission decreases occur in any air basin for which emission reduction commitments have been

<sup>22</sup> California Assembly Bill 2289, passed in 2010, requires the Bureau of Automotive Repair to direct older vehicles to high performing auto technicians

and test stations for inspection and certification effective 2013. Reductions shown for the SmogCheck program in the 2011 Progress Report do

not include reductions from AB 2289 improvements. See CARB Progress Report supplement, attachment 5.

made that are greater than the projected emissions reductions from the adopted measures in the State Strategy, the actual emission decreases may be counted toward meeting ARB's total emission reduction commitments."

CARB Resolution 07–28 (September 27, 2007), Appendix B, p. 3.

### 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 the results of this analysis 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 analysis, 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/RACM Demonstration and Adopted Control Strategy

We propose to find that there are, at this time, no additional reasonably available measures that individually or collectively would advance attainment of the PM<sub>2.5</sub> NAAQS in the South Coast nonattainment area by one year or more. This proposal is based on our review of potential RACM/RACM in the revised 2007 South Coast AQMP and the 2007 State Strategy; the District's and State's adopted control strategies, including their commitments to adopt measures and their progress in meeting those commitments; and our proposed concurrence (discussed below in section V.C.3) with the State's determination that SO<sub>x</sub>, NO<sub>x</sub>, and VOC are, and ammonia is not, attainment plan precursors per 40 CFR 51.1002(c). Therefore, we propose to find that the relevant portions of the South Coast 2007 AQMP and the 2007 State Strategy

provide for the implementation of RACM/RACM as required by CAA section 172(c)(1) and 40 CFR 51.1010.

Because they will strengthen the California SIP, we are also proposing to approve, the District's commitments to adopt and implement specific control measures on the schedule identified in Tables 2–5 of Appendix E in the 2011 Progress Report, 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 1 of the 2011 Progress Report (and Table 2 in today's proposal).

We are also proposing to approve CARB's commitments to propose certain defined measures, as given on Table B–1 in Appendix B of the 2011 Progress Report, and to achieve total aggregate emissions reductions necessary to attain the 1997 PM<sub>2.5</sub> standards in the South Coast nonattainment area, whether these reductions are realized from the new measures, alternative control measures, incentive programs, or other actual emissions decreases. See CARB Resolution 07–28 (September 27, 2007), Appendix B, p. 3. This commitment is to aggregate emissions reductions of 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> in the South Coast by 2014 (see page 20 of the 2009 State Strategy Status Report).

### C. Attainment Demonstration

#### 1. Requirements for Attainment Demonstration

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/RACM 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." (Guidance).<sup>23</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.

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>24</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

<sup>23</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.

<sup>24</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.

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 for 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 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 PM<sub>2.5</sub> annual design value is 15.0 µg/m<sup>3</sup> or lower.<sup>25</sup>

The District also performed the recommended unmonitored area analysis and it indicated that there were no additional nonattainment problems in unmonitored areas. The future PM<sub>2.5</sub> design values were also compared to the 24-hour PM<sub>2.5</sub> NAAQS to demonstrate attainment at each site. The maximum predicted 2014 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 of 65 µg/m<sup>3</sup>. 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 6.<sup>26 27</sup>

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

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

#### Effect of Inventory Changes on the Air Quality Modeling and Attainment Demonstrations

As discussed above in section V.A., CARB has recently updated the inventories for several mobile source categories for both the base and future years as well as revised the economic forecasts on which the future inventories were based. Ideally, new attainment demonstration modeling would be performed to evaluate the effect of these updates and revisions; however, remodeling is a substantial undertaking and would not necessarily change the basic conclusions of the existing attainment demonstration analysis.

Relative to emissions in the South Coast 2007 AQMP, the decreases in the base year 2002 emissions inventory due to the inventory updates are about 4 percent for NO<sub>x</sub> and 5 percent for direct PM<sub>2.5</sub> emissions. CARB Progress Report supplement, Attachment 1. For the 2014 attainment target year, the

<sup>26</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>27</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).

decreases in the projected 2014 baseline due to both methodology changes (e.g., changes to construction equipment emissions factors) and the revised economic forecasts are 10 percent for NO<sub>x</sub>, 2 percent for direct PM<sub>2.5</sub>, 2 percent for VOC, and a 30 percent increase for SO<sub>x</sub>.<sup>28</sup> The effect of the revisions in the target year as compared to the base year are about the same for direct PM<sub>2.5</sub>, and somewhat larger for NO<sub>x</sub>. The overall effect of the inventory revisions is thus to increase the emission reductions from base year to attainment year, in a relative sense. Likewise, the revisions would tend to make the relative reduction factors (factors used to scale the modeling results) lower, decreasing the projected PM<sub>2.5</sub> concentrations in the attainment year and effectively making the attainment demonstration over-estimate the level of emissions reductions needed to attain. Based on model sensitivity results provided by CARB, EPA estimates that ambient concentrations would be slightly lower in the attainment year due to the emission inventory revisions. EPA therefore concludes that the attainment demonstration remains valid, despite the emission inventory changes.

#### 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.

<sup>28</sup> By 2014, SO<sub>x</sub> emissions reach the attainment target due to adopted State and District rules.

<sup>25</sup> See 40 CFR part 50 Appendix N, 4.1(a). A predicted design value of 15.04 µg/m<sup>3</sup> or lower is considered modeled attainment of the annual standard.

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's preamble, 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. 40 CFR 51.1002(c)(2). In contrast, EPA has determined in the PM<sub>2.5</sub> implementation rule that a state does not need to address controls for sources of VOC and ammonia unless the state and/or EPA make a technical demonstration that controls on such sources would significantly contribute to reducing PM<sub>2.5</sub> concentrations in the specific nonattainment area at issue. 40 CFR 51.1002(c)(3) and (4). Such a demonstration is required "if the administrative record related to development of its SIP shows that the presumption is not technically justified for that area." 40 CFR 51.1002(c)(5).

"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. Although EPA did not establish a quantitative test for determining what constitutes a significant change, EPA noted that even relatively small reductions in PM<sub>2.5</sub> levels are estimated to result in worthwhile public health benefits. *Id.*

EPA further explained that a technical demonstration to reverse the presumption for NO<sub>x</sub>, VOC, or ammonia in any area could consider the emissions inventory, speciation data, modeling information, or other special studies such as monitoring of additional compounds, receptor modeling, or special monitoring studies. 72 FR 20586 at 20596–20597. These factors could indicate that the emissions or ambient concentration contributions of a precursor, or the sensitivity of ambient concentrations to changes in precursor emissions, differs for a specific nonattainment area from the presumption EPA established for that precursor in the PM<sub>2.5</sub> implementation rule.

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>, VOC, 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 the District's 8-hour ozone NAAQS strategy.<sup>29</sup> The PM<sub>2.5</sub> implementation rule allows States or EPA to evaluate which PM<sub>2.5</sub> precursors should be precursors for regulatory purposes in a particular nonattainment area, based on the facts and circumstances of such area. SCAQMD has elected to consider VOCs as regulatory precursors for the purpose of this SIP, based on their modeling analysis, which considered the sensitivity of PM<sub>2.5</sub> formation to VOC emission reduction. EPA agrees that the District's determination to consider VOC as a precursor for this SIP is appropriate in this nonattainment area.

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 attainment demonstration justifying its proposed attainment date and provides that EPA will approve an attainment date when we approve that demonstration.

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.

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). Annual PM<sub>2.5</sub> concentrations recorded over the last few years at the Mira Loma monitoring site continue to exceed the 1997 PM<sub>2.5</sub> NAAQS.<sup>30</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 V.B.2. 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. Further reducing these pollutants is challenging, because the State and District have already adopted stringent control measures for most

<sup>29</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.

<sup>30</sup> See footnote 2.

sources of direct PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and SO<sub>x</sub> emissions. Moreover, attainment in the South Coast nonattainment area depends on emissions reductions that offset the emissions increases associated with projected increases in population, economic growth, and goods movement.

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. The District's control strategies are discussed in greater detail in Chapter 4 of the South Coast 2007 AQMP, and in section V.B.2 above.

In addition, the State has adopted standards for many categories of on-road and off-road vehicles and engines, gasoline and diesel fuels, as well as improvements to California's vehicle inspection and maintenance program, and programs requiring the retrofitting and replacement of in-use trucks, buses, and off-road equipment. The State is implementing these rules and programs as expeditiously as practicable, and it is not feasible to accelerate the schedule

for new emissions standards under the State and Federal mobile source control programs.

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 V.B.3 above, we are proposing to approve the RACM/RACT demonstration in the South Coast 2007 AQMP. As discussed below in section V.C.6., we are also proposing to approve the attainment demonstration in the SIP. Based on these proposed approvals, EPA is proposing to grant an extension of the attainment date for the 1997 PM<sub>2.5</sub> standards in the South Coast to April 5, 2015 pursuant to CAA section 172(b)(2) and 40 CFR 51.1004(b).

5. Attainment Demonstration

Table 7 below summarizes the reductions that are relied on in the South Coast 2007 AQMP to demonstrate attainment by April 5, 2015.

TABLE 7—SUMMARY OF EMISSIONS REDUCTION PROGRESS FOR SOUTH COAST'S PM<sub>2.5</sub> ATTAINMENT DEMONSTRATION (TONS PER DAY, TPD), UPDATED APRIL 2011

	NO <sub>x</sub>	VOC	Direct PM <sub>2.5</sub>	SO <sub>x</sub>
2002 baseline (2011 SIP Revision, p. 9 .....	1093	844	99	53
2014 attainment targets (ARB staff Report for South Coast 2007 AQMP) * ..	460	474	86	20
2014 baseline (2011 SIP Revision, Appendix E, p. 2) ** ..	589	518	95	61
2014 remaining emissions after "adopted controls" (2011 SIP Revision, Appendix E, p. 2) *** ..	530	485	87	20
Remaining emissions reduction/enforceable commitment **** ..	70 (11%)	11 (3%)	1 (8%)	0 0%

\* The attainment targets have not changed from the November 22, 2010 proposal.

\*\* The 2014 baseline is revised to reflect new estimates which take into account the impact of the economic recession on and changes in inventory methodologies for diesel trucks, goods movement and construction equipment. See 2011 Progress Report, Appendix E, page 2, "South Coast Air Basin 2014 Progress to Date on ARB Rules" table, "New 2014 Baseline" numbers.

\*\*\* The 2014 remaining emissions number is what remains after crediting the reductions from "adopted controls." By "adopted controls" we mean State or district control measures that EPA has approved or proposed to approve into the SIP, or state mobile source measures that are subject to a CAA section 209 waiver. See section V.B.2.b of this notice. In separate actions, EPA has recently proposed to approve several of the measures listed in the 2011 Progress Report SIP Revision, Appendix E tables (e.g., CARB's diesel truck rules and the Ocean-going Vessels fuel rule).

\*\*\*\* This row reflects the State's aggregate emissions reduction commitment, including the 10 tpd NO<sub>x</sub> federal assignment. See 2011 Progress Report, p. 5.

As shown in this table, the majority of the emissions reductions that the State projects are needed for PM<sub>2.5</sub> attainment in the South Coast by April 5, 2015 come from baseline reductions. These baseline reductions include not only the benefit of numerous adopted District and State measures which generally have been approved by EPA either through the SIP process or the CAA section 209 waiver process but also the effect of the recent economic recession and revised emission factors and activity data on projected future inventories. See 2011 Progress Report, Appendix E and Appendices A and B of

the TSD. The remaining reductions needed for attainment are to be achieved by the District's and CARB's commitments to reduce emissions in the South Coast nonattainment area. Since the submittal of the South Coast 2007 AQMP and the 2007 State Strategy, SCAQMD and CARB have adopted measures (summarized in Table 8 below) that can be credited towards reducing the aggregate emissions reductions in the enforceable commitments.

a. Enforceable Commitments

As shown above, measures already adopted by the District and CARB (both prior to and as part of the South Coast 2007 AQMP) provide the majority of emissions reductions the State projects are needed to demonstrate attainment. The balance of the needed reductions is in the form of enforceable commitments by the District and CARB.

The CAA allows approval of enforceable commitments that are limited in scope where circumstances exist that warrant the use of such commitments in place of adopted

measures.<sup>31</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>32</sup>

With respect to the South Coast 2007 AQMP and 2007 State Strategy, circumstances warrant the consideration of enforceable commitments as part of the attainment demonstration for the South Coast nonattainment area. As shown in Table 7 above, the majority of emission reductions that are needed to demonstrate attainment and RFP in the South Coast nonattainment area 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 measures, most sources in the South Coast nonattainment area were already subject

<sup>31</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 par.*, 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>32</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).

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 2009 revisions to the 2007 State Strategy, the District and CARB identified potential control measures that could achieve the additional emissions reductions needed for attainment. However, the timeline needed to develop, adopt, and implement these measures went well beyond the April 5, 2008<sup>33</sup> CAA deadline to submit the PM<sub>2.5</sub> plan. As discussed above and below, since 2007, the District and State have made progress in adopting measures to meet their commitments, but have not yet completely fulfilled them. Given these circumstances, the 2007 AQMP and the 2007 State Strategy's reliance on enforceable commitments is warranted. We now consider the three factors EPA uses to determine whether the use of enforceable commitments in lieu of adopted measures to meet CAA planning requirements is approvable.

#### i. The Commitment Represents a Limited Portion of Required Reductions

For the first factor, 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.

As shown in Table 7, the remaining portion of the enforceable commitments in the South Coast 2007 AQMP and the revised 2007 State Strategy are 70 tpd NO<sub>x</sub>, 11 tpd VOC and 1 tpd direct PM<sub>2.5</sub> after accounting for measures that are either approved or proposed for approval and revisions to the future year baseline inventories resulting from changes to the plan's economic forecasts and other factors. When compared to the total reductions needed by 2014 for PM<sub>2.5</sub> attainment in the South Coast nonattainment area on a per-pollutant basis, these remaining commitments represent approximately 11 percent of the NO<sub>x</sub> reductions, 3 percent of the VOC reductions and 8 percent of the direct PM<sub>2.5</sub> reductions needed to attain the 1997 PM<sub>2.5</sub> standards in the South Coast nonattainment area.

We find that the reductions remaining as enforceable commitments in the 2007 AQMP and the 2007 State Strategy

<sup>33</sup> The 2007 State Strategy and the South Coast 2007 AQMP were developed to address both the 1997 PM<sub>2.5</sub> NAAQS and the 1997 8-hour ozone NAAQS. The 8-hour ozone SIPs were due in November 2007, and the development and adoption of these plans was timed to coordinate with this submittal date. 2007 State Strategy, p. 1, and South Coast 2007 AQMP, p. ES-3.

represent a limited portion of the total emissions reductions needed to meet the statutory requirement for attainment in the South Coast nonattainment area and therefore satisfy the first factor. Overall, the level of reductions remaining as commitments is approximately within the 10 percent range that EPA has historically accepted in approving attainment demonstrations.<sup>34</sup>

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

For the second factor, we consider whether the State and District are capable of fulfilling their commitments. As discussed above, CARB has adopted and submitted a 2009 State Strategy Status Report and a 2011 Progress Report, which update and revise the 2007 State Strategy. These reports show that CARB has made significant progress in meeting its enforceable commitments for the South Coast and several other nonattainment areas in California. Additional ongoing programs that address locomotives, recreational boats, and other measures have yet to be quantified but are expected to reduce NO<sub>x</sub> and direct PM<sub>2.5</sub> emissions in the South Coast by 2014. See 2011 Progress Report, Appendix E, page 2.

The District has already exceeded its commitment for reducing VOC and SO<sub>x</sub> emissions and is working to meet the commitment to reduce NO<sub>x</sub> and directly emitted PM<sub>2.5</sub>. See Tables 2 and 3. The District is also continuing to work to identify and adopt additional measures that will reduce emissions.

Beyond the rules discussed above, both CARB and the District have well-funded incentive grant programs to reduce emissions from the on- and off-road engine fleets. Reductions from several of these programs have yet to be quantified and/or credited in the attainment demonstration. Finally, we note that the South Coast has experienced significant improvements in its PM<sub>2.5</sub> air quality in the past few years.

Given the evidence of the State's and District's efforts to date and their continuing efforts to reduce emissions, we find that the State and District are capable of meeting their enforceable commitments to achieve the necessary reductions needed to attain the 1997 PM<sub>2.5</sub> standards in the South Coast nonattainment area by its proposed attainment date of April 5, 2015.

<sup>34</sup> See, for example, our approval of the SJV PM<sub>10</sub> Plan at 69 FR 30005 (May 26, 2004), the SJV 1-hour ozone plan at 75 FR 10420 (March 8, 2010), and the Houston-Galveston 1-hour ozone plan at 66 FR 57160 (November 14, 2001).

### iii. The Commitment is for a Reasonable and Appropriate Period of Time

For the third and final factor, we consider whether the commitment is for a reasonable and appropriate period of time.

In order to meet the commitments to reduce emissions to the levels needed to attain the 1997 PM<sub>2.5</sub> standards in the South Coast nonattainment area, the South Coast 2007 AQMP and the 2007 State Strategy included ambitious rule development, adoption, and implementation schedules, which both the District and CARB have substantially met. See 2011 Progress Report, p. 9. EPA considers these schedules to provide sufficient time to achieve by 2014 the few remaining reductions needed to attain by the proposed attainment date of April 5, 2015. We, therefore, conclude that the third factor is satisfied.

### b. Federal Reductions

As discussed in our November 2010 proposal and 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. However, because the CAA does not authorize a State to assign responsibility to the Federal government for meeting SIP requirements, we cannot accept the 10 tpd NO<sub>x</sub> emissions reductions emissions reductions the District and State assigned to the Federal government in the South Coast 2007 AQMP.

The District has further addressed the federal assignment by committing to an additional reduction of 1 tpd NO<sub>x</sub> (see 2011 Progress Report, Appendix F, p. 5 and SCAQMD Governing Board Resolution 11–9, March 4, 2011). In addition, CARB has committed to achieve the remaining portion of the federal assignment in the 2011 Progress Report and includes it in the remaining commitment of 70 tpd of NO<sub>x</sub>. (See 2011 Progress Report, p. 5, and CARB Executive Order S–11–010.) As we stated in our November 2010 proposal, we are not accepting the 10 tpd NO<sub>x</sub> federal assignment as the CAA does not allow for such assignment. We are proposing, however, to approve the State's and District's commitments to achieve the emissions reductions previously attributed to the federal government.

### 6. Proposed Action on the Attainment Demonstration

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 V.A and V.C.2, we are proposing to approve both the emissions inventories and the air quality modeling on which the South Coast 2007 AQMP's attainment demonstration and other provisions are based.

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 V.B, we are proposing to approve the RACM/RACT demonstration in the South Coast 2007 AQMP.

Third, EPA must find that the emissions reductions that are relied on for attainment are creditable. As discussed in section V.C.5, the South Coast 2007 AQMP relies principally on adopted and approved/waived rules to achieve the emissions reductions needed to attain the 1997 PM<sub>2.5</sub> standards in the South Coast nonattainment area by April 5, 2015. The balance of the reductions is currently in the form of enforceable commitments that account for 11% of the NO<sub>x</sub>, 8% of the direct PM<sub>2.5</sub>, and 3% of the VOC emission reductions needed from 2002 levels for attainment. See Table 7.

EPA has previously accepted enforceable commitments in lieu of adopted control measures in attainment demonstrations when circumstances warrant it and the commitments meet three criteria. As discussed above in section V.C.5, we find that circumstances here warrant the consideration of enforceable commitments and that the three criteria are met: (1) Both the State and the District have demonstrated their capability to meet their commitments, (2) the commitments constitute a limited portion of the required emissions reductions, and (3) the commitments are for an appropriate timeframe. Based on these conclusions, we propose to allow the State to rely on these limited enforceable commitments in its attainment demonstration.

Finally, for a PM<sub>2.5</sub> nonattainment area that cannot attain within five years of its 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 V.C.4, we propose to determine that a five-year extension of the attainment date is appropriate given the nonattainment problem in the South Coast nonattainment area and the availability

and feasibility of control measures and, therefore, to grant the State's request to extend the attainment date in the South Coast nonattainment area to April 5, 2015. For the foregoing reasons, we are proposing to approve the attainment demonstration in the South Coast 2007 AQMP.

### D. Reasonable Further Progress 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 submittal of an RFP plan at the same time as the attainment demonstration for any area for which the State seeks an extension of the attainment date beyond 2010. For areas for which the state requests an attainment date extension to 2015, such as the South Coast nonattainment area, the RFP plan must demonstrate 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. 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 attainment 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 direct PM<sub>2.5</sub> and PM<sub>2.5</sub> attainment plan precursors. 40 CFR 51.1009(c).

#### 2. Reasonable Further Progress Demonstration in the South Coast 2007 AQMP

CARB provided an updated and revised RFP demonstration for the South Coast nonattainment area in Appendix C of the 2011 Progress Report.



The demonstration addresses direct PM<sub>2.5</sub>, NO<sub>x</sub>, VOC and SO<sub>x</sub> and uses the 2002 annual average day inventory as the base year inventory and 2014 as the attainment year. The revised South

Coast PM<sub>2.5</sub> RFP demonstration is summarized Table 8 below.

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 direct 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.

TABLE 8—REVISED RFP CALCULATIONS  
[Tons per average annual day]

	NO <sub>x</sub>	VOC	Direct PM <sub>2.5</sub>	SO <sub>x</sub>
2002 baseline inventory (tpd) .....	1093	844	99	53
Annual percentage change needed to show linear progress (%) .....	4.87	3.7	1.01	5.35
Annual emissions reduction representing 1 year's worth of RFP .....	52.8	30.8	1.1	2.8
2009				
Benchmark emissions level (tpd) .....	724	628	91	34
Revised projected controlled level (tpd) .....	677	563	89	43
Emissions above/below benchmark emissions level (tpd) <sup>a</sup> .....	-47	-65	-2	9
Percent above/below benchmark emissions level .....	-6%	-10%	-2%	+26%
2012				
Benchmark emissions level (tpd) .....	566	534	88	26
Revised projected controlled emissions level (tpd) .....	582	514	89	26
Emissions above/below benchmark emissions level (tpd) .....	16	-20	1	0
Percent above/below benchmark emissions level (%) .....	+2.8%	-4%	+1%	0%

Source: 2011 Progress Report, Appendix C, Table C-2.

<sup>a</sup> A "-" value in the "projected shortfall" cell means the target has been exceeded. A bold italicized value indicates a shortfall.

3. Proposed Action on the RFP Demonstration

EPA has reviewed the revised RFP demonstration in the 2011 Progress Report and has determined that it was prepared consistent with applicable EPA regulations and policies. See Section II.H of the TSD. As can be seen from Table 8 above, controlled emissions levels for NO<sub>x</sub>, direct PM<sub>2.5</sub> and VOC were below the benchmarks for 2009, demonstrating that the South Coast nonattainment area met its RFP targets for that year for those pollutants. The table shows that the area has a shortfall of 9 tpd of SO<sub>x</sub> in 2009. For 2012, the projected controlled emissions levels for direct PM<sub>2.5</sub> and NO<sub>x</sub> are only slightly above the benchmark (by about 1%) and the projected controlled levels for VOC and SO<sub>x</sub> are below or at the benchmarks. We find that, overall, these projected controlled emissions levels represent generally linear progress for 2012.

Based on our evaluation, which is summarized above and discussed in detail in section II.H. of the TSD, and our proposed concurrence (discussed above in Section V.C.3) with the State's determination that NO<sub>x</sub>, VOC, and SO<sub>x</sub> are attainment plan precursors and ammonia is not an attainment plan precursor per 40 CFR 51.1002(c), we propose to find that the South Coast 2007 AQMP provides for reasonable further progress as required by CAA

section 172(c)(2) and 40 CFR 51.1009 and that the South Coast nonattainment area has met its 2009 RFP benchmarks.<sup>35</sup>

E. 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

<sup>35</sup> As discussed above in section V.A., CARB has recently updated the inventories for several mobile source categories and estimates that these updates would reduce, if incorporated into those inventories, the Plan's 2002 base year NO<sub>x</sub> inventory by approximately 4 percent and the direct PM<sub>2.5</sub> inventory by approximately 5 percent. CARB Progress Report Supplement, Attachment 1. EPA evaluated the potential impact of revising the 2002 base year inventories on the RFP demonstration and found that the Plan would continue to show the RFP. See Section II.H. of the TSD.

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, for example, 62 FR 15844 (April 3, 1997) direct final rule approving Indiana ozone SIP revision; 62 FR 66279 (December 18, 1997), final rule approving Illinois ozone SIP revision; 66 FR 30811 (June 8, 2001), direct final rule approving Rhode Island ozone SIP revision; 66 FR 586 (January 3, 2001), final rule approving District of Columbia, Maryland, and Virginia ozone SIP revisions; and 66 FR 634 (January 3, 2001), final rule approving Connecticut ozone SIP revision. The State may use the same measures for both RFP and attainment contingency if the measures will provide reductions in the relevant years; however, should measures be triggered for failure to make RFP, the State would need to submit replacement contingency measures for attainment purposes.

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 South Coast 2007 AQMP does not calculate the emissions reductions that are equivalent to one year’s worth of RFP. Based on information in the plan, we have calculated one year’s worth of RFP to be 1.1 tpd of direct PM<sub>2.5</sub>, 52.8 tpd of NO<sub>x</sub>, 30.8 tpd of VOC, and 2.8 tpd of SO<sub>x</sub>. See Section II.I of the TSD.

The 2011 Progress Report adds language indicating that the trigger for implementation of the contingency measures is nonattainment of the PM<sub>2.5</sub> standard by April 5, 2015. (See 2011 Progress Report, Appendix F, page (5)) Additional information provided by CARB indicates some reductions are available for attainment contingency measures. See CARB Progress Report Supplement, Attachment 2, dated May 18, 2011, in the docket for today’s action.

The South Coast 2007 AQMP and the 2011 Progress Report contained the following contingency measures.

*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, because 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 occurred on November 15, 2010) and not by any failure to make RFP or to attain the PM<sub>2.5</sub> NAAQS, a requirement for contingency measures for PM<sub>2.5</sub> SIPs. South Coast Rule 317 (a fee equivalency program and demonstration) was adopted on February 4, 2011 and submitted to EPA for approval on April 22, 2011. There is no implementation schedule provided for this contingency measure, 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—Request CARB to accelerate State measure implementation*—This proposed contingency measure (which could function as both an RFP and an attainment contingency measure), requires the District’s Governing Board to adopt a resolution requesting CARB to accelerate the adoption and/or implementation of any remaining control measures that have not yet been adopted or fully implemented by one year. South Coast 2007 AQMP, page 9–3.

Under CAA section 172(c)(9) and EPA’s 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.<sup>36</sup> 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*. Excess reductions from CARB mobile source measures in 2015/2016 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.

CARB’s 2011 Progress Report included calculations for the reductions associated with the existing CARB mobile source control program for 24 tpd of NO<sub>x</sub> and 13 tpd of VOC in the year after attainment. However, CARB’s mobile source measures do not provide sufficient reductions to meet one year’s worth of RFP, based on the information provided in the 2011 Progress Report (see 2011 Progress Report, Appendix F, p. 3, and CARB Progress Report supplement, Attachment 2; therefore, post-attainment-year emissions reductions do not meet the CAA contingency measure requirement.

<sup>36</sup> See “State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,” 57 FR 13498, at 13512 (April 16, 1992).

TABLE 9—SUMMARY OF REDUCTIONS FROM CONTINGENCY MEASURES  
[Tons per average annual day]

	PM <sub>2.5</sub>	NO <sub>x</sub>	VOC	SO <sub>x</sub>
Excess reductions in the RFP demonstration that are available to meet the 2012 RFP contingency requirements (excess reduction in the 2012 RFP demonstration) .....	0	0	0	0
New 2015 reductions available to meet the attainment contingency requirement .....	0	24	13	0
Reductions equivalent to 1-year's worth of RFP .....	1.1	52.8	30.8	2.8

Source: 2011 Progress Report (see 2011 Progress Report, Appendix F, p. 3.

3. Proposed Action on the Contingency Measures

We are not evaluating the provisions in the South Coast 2007 AQMP that address contingency measures for failure to meet the 2009 RFP benchmarks. Information in the 2011 Progress Report shows that South Coast met its 2009 benchmarks for direct PM<sub>2.5</sub>, NO<sub>x</sub>, and VOC. See 2011 Progress Report, Appendix C, Table C–2. SO<sub>x</sub> emissions were higher than the linear benchmark, but were corrected by the 2012 linear benchmark. See 2011 Progress report, Table C–2, and section II.H of the TSD. Therefore, contingency measures for failure to meet the 2009 RFP benchmark no longer have any meaning or effect under the CAA and therefore do not require any review or action by EPA. In addition, as noted above, the purpose of RFP contingency measures is to provide continued progress while the SIP is being revised to meet a missed RFP milestone. Failure to meet the 2009 benchmark would have required California to revise the South Coast 2007 AQMP to assure that the next milestone was met and that the plan still provided for attainment. California has already prepared and submitted a revision to the South Coast 2007 AQMP that shows that the SIP continues to provide for RFP and for attainment by April 5, 2015. This revision is the 2011 Progress Report, which is one of the submittals that EPA is proposing action on in this notice.

The South Coast 2007 AQMP includes suggestions for several contingency measures that do not meet the CAA's minimum requirements. 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.

The continuing implementation of the State's mobile source program will reduce emissions substantially in 2015 (the year after the 2014 attainment year). However, as shown in Table 9, these reductions do not provide emissions reductions equivalent to one year's

worth of RFP when considered on a per-pollutant basis.

Based on this evaluation and for the reasons stated above, we are proposing to disapprove the District's contingency measure provisions for the 2012 RFP year and the attainment year in the South Coast 2007 AQMP for PM<sub>2.5</sub> as not meeting the requirements of CAA section 172(c)(9) and 40 CFR 51.1012.

F. Motor Vehicle Emissions Budgets for Transportation Conformity

1. Requirements for Transportation Conformity

Transportation conformity is required by section 176(c) of the CAA. Actions involving Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding or approval are subject to the EPA's transportation conformity rule, codified at 40 CFR part 93, subpart A. Our transportation conformity rule requires that transportation plans, programs, and projects developed by Metropolitan Planning Organizations (MPOs) in nonattainment and maintenance areas 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 cause or contribute to 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 from existing and planned highway and transit systems allowed in the appropriate years, *i.e.*, the motor vehicle emissions budgets ("budgets"). The submittal must also demonstrate that these transportation-related emissions levels, when considered with emissions from all other sources, are consistent with RFP or attainment of the NAAQS, whichever is applicable. MPOs cannot use the budgets and DOT cannot approve a Regional Transportation Plan (RTP) or Transportation Improvement Program (TIP) conformity analysis using

the budgets until EPA had made an affirmative adequacy finding based on a preliminary review of the SIP. MPOs must use budgets in a submitted but not yet approved SIP, after EPA has determined that the budgets are adequate. 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>.

PM<sub>2.5</sub> attainment and RFP plans should identify budgets for direct PM<sub>2.5</sub> and PM<sub>2.5</sub> attainment plan precursors. Direct PM<sub>2.5</sub> budgets should include PM<sub>2.5</sub> motor vehicle emissions from tailpipe, brake wear, and tire wear. States must also consider whether re-entrained paved and unpaved road dust or highway and transit construction dust are significant contributors and should be included in the direct PM<sub>2.5</sub> budget. (See 40 CFR 93.102(b) and 93.122(f) and the conformity rule preamble at 69 FR 40004, 40031–40036 (July 1, 2004)). The applicability of emission trading between conformity budgets for conformity purposes is described in 40 CFR 93.124(c).

2. Budgets in the South Coast 2007 AQMP and Additional 2008 Submittal

As submitted on November 28, 2007, the 2007 South Coast AQMP included a set of PM<sub>2.5</sub> budgets for direct PM<sub>2.5</sub>, and the PM<sub>2.5</sub> precursors NO<sub>x</sub> and VOC for RFP years 2009 and 2012, the attainment year 2014, and 2023 and 2030. The direct PM<sub>2.5</sub> budgets include tailpipe, brake wear, tire wear, and paved road, unpaved road, and construction dust. 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 replaced 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 requested 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 expected 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>37</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 2023 and 2030.

3. EPA’s 2008 Adequacy/Inadequacy Finding

EPA generally first conducts a preliminary review of 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 replacement 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 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 9 to James Goldstene, 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. More information on this finding can be found in the TSD for today’s action.

4. Updated Motor Vehicle Emissions Budgets in the 2011 Progress Report and Additional Revisions

CARB’s 2011 Progress Report contained updated budgets for the South Coast nonattainment area and their documentation in Appendices D and A, respectively, of the 2011 Progress Report. The updated budgets were for direct PM<sub>2.5</sub>, VOC and NO<sub>x</sub> for the RFP year of 2012 and the attainment year of 2014. No updated budgets were included in the 2011 Progress Report for the RFP year of 2009 because there are

no applicable conformity analysis years prior to 2012.

The submittal also includes a proposed trading mechanism for transportation conformity analyses that would allow future decreases in NO<sub>x</sub> emissions from on-road mobile sources to offset any on-road increases in PM<sub>2.5</sub>, using a NO<sub>x</sub> to PM<sub>2.5</sub> ratio of 10 to 1. Transportation conformity trading mechanisms are allowed under 40 CFR 93.124. The basis for the trading mechanism is the SIP attainment modeling which established the relative contribution of each PM<sub>2.5</sub> precursor pollutant.

As proposed in the 2011 Progress Report, this trading mechanism would only be used, if needed, for conformity analyses for years after 2014. To ensure that the trading mechanism does not impact the ability of the South Coast nonattainment area to meet the NO<sub>x</sub> budget, the NO<sub>x</sub> emission reductions available to supplement the PM<sub>2.5</sub> budget would only be those remaining after the 2014 NO<sub>x</sub> budget has been met. Clear documentation of the calculations used in the trading would be included in the conformity analysis. See 2011 Progress Report, Appendix D, footnote to Table D–1.

On June 20, 2011, CARB posted on its Web site technical revisions to the updated MVEB in the 2011 Progress Report that were referenced in a June 3rd letter to EPA.<sup>38</sup> See CARB, “Proposed 8–Hour Ozone State Implementation Plan Revisions and Technical Revisions to the PM<sub>2.5</sub> State Implementation Plan Transportation Conformity Budgets for the South Coast and San Joaquin Valley Air Basins,” Appendix C, June 20, 2011, posted at <http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm>. These revised updated budgets are shown in Table 10 below. The technical revisions correct data entry errors in the budget calculations and remove the emission reductions attributed to AB923 (the South Coast District’s light and medium duty high emitter program).

TABLE 10—REVISED UPDATED RFP AND ATTAINMENT YEAR BUDGETS FOR THE SOUTH COAST PM<sub>2.5</sub> NONATTAINMENT AREA

Year	Pollutant		
	VOC	NO <sub>x</sub>	Direct PM <sub>2.5</sub>
2012 .....	154	326	37

<sup>37</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.

<sup>38</sup> See letter, James M. Goldstene, Executive Officer, CARB, to Deborah Jordan, Air Division Director, EPA Region 9, June 3, 2011.

TABLE 10—REVISED UPDATED RFP AND ATTAINMENT YEAR BUDGETS FOR THE SOUTH COAST PM<sub>2.5</sub> NONATTAINMENT AREA—Continued

Year	Pollutant		
	VOC	NO <sub>x</sub>	Direct PM <sub>2.5</sub>
2014	132	290	35

Source: Proposed 8-Hour Ozone State Implementation Plan Revisions and Technical Revisions to the PM<sub>2.5</sub> State Implementation Plan Transportation Conformity Budgets for the South Coast and San Joaquin Valley Air Basins, Appendix C, June 20, 2011.

5. Proposed Action on the Revised Updated Budgets in the 2011 Progress Report

EPA has evaluated the revised updated budgets against our adequacy criteria in 40 CFR 93.118(e)(4) and (5) as part of our review of the approvability of the budgets. The results of this review are documented in Section II.J of the TSD. We are also posting a notice of availability on our transportation adequacy Web site at <http://www.epa.gov/otaq/stateresources/transconf/currsips.htm>. EPA is not required under its Transportation Conformity rules to find budgets adequate prior to proposing approval of them. We will ultimately complete the adequacy review of these budgets, which could occur when we take a final action on this SIP, or at an earlier date.

As discussed in sections V.C. and V.D., we have completed our detailed review of the South Coast 2007 AQMP and supplemental submittals, including the 2011 Progress Report. Based on this thorough review of these submittals, we are proposing to approve the attainment and RFP demonstrations in the South Coast 2007 AQMP. As discussed above, CARB has recently posted revisions to the updated budgets that were submitted in the 2011 Progress Report and intends to present these budgets for adoption as a SIP revision at its July 21, 2011 Board meeting. After reviewing these revised updated MVEBs, we are proposing to find them to be consistent with the approvable attainment and RFP demonstrations and to find that they meet all other applicable statutory and regulatory requirements including the adequacy criteria in 40 CFR 93.118(e)(4) and (5). Therefore, EPA proposes to approve the revised updated budgets based on our assumption that we will receive the revised budgets as a complete SIP revision from the State prior to our final action on the South Coast 2007 AQMP. If CARB is unable to adopt and submit the revised budgets, then EPA intends to find inadequate and disapprove the budgets contained in the 2011 Progress Report.<sup>39</sup> If we

disapprove the budgets, a conformity freeze would take effect upon the effective date of the disapproval (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 RTP and TIP can proceed. During a freeze, no new RTPs, TIPs or RTP/TIP amendments can be found to conform. See 40 CFR 93.120.

6. Proposed Action on the Trading Mechanism

As noted above, CARB included a trading mechanism to be used in transportation conformity analyses that use the proposed budgets as allowed under 40 CFR 93.124. This trading mechanism would allow future decreases in NO<sub>x</sub> emissions from on-road mobile sources to offset any on-road increases in PM<sub>2.5</sub>, using a NO<sub>x</sub>:PM<sub>2.5</sub> ratio of 10:1. To ensure that the trading mechanism does not impact the ability of SCAG to meet the NO<sub>x</sub> budget, the NO<sub>x</sub> emission reductions available to supplement the PM<sub>2.5</sub> budget would only be those reductions remaining after the 2014 NO<sub>x</sub> budget has been met. The trading mechanism will be implemented with the following criteria. The trading applies only to:

- Analysis years after the 2014 attainment year.
- On-road mobile emission sources.
- Trades using vehicle NO<sub>x</sub> emission reductions in excess of those needed to meet the NO<sub>x</sub> budget.
- Trades in one direction from NO<sub>x</sub> to direct PM<sub>2.5</sub>.
- A trading ratio of 10 tpd NO<sub>x</sub> to 1 tpd PM<sub>2.5</sub>.

Clear documentation of the calculations used in the trading would be included in the conformity analysis. See 2011 Progress Report, Appendix D, footnote to Table D–1.

EPA has reviewed the 10:1 NO<sub>x</sub>:PM<sub>2.5</sub> ratio and finds it is an appropriate ratio for trading between NO<sub>x</sub> and direct PM<sub>2.5</sub> for transportation conformity purposes in the South Coast Air Basin

<sup>39</sup>because they include uncreditable reductions from AB923 and because of the technical error in the budget calculations.

for the 1997 PM<sub>2.5</sub> NAAQS. The method for determining the NO<sub>x</sub> Equivalent Factors is documented in CARB’s Staff Report on 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, Appendix C. The method discussed in this documentation appears to be adequate for purposes of assessing the effect of area-wide emissions changes, such as are used in conformity budgets. See Section V.D.2 above and II.B.4 of the TSD.

EPA believes that South Coast 2007 AQMP as revised by the 2011 Progress Report includes an approvable trading mechanism for determining transportation conformity after 2014. EPA is proposing to approve the trading mechanism and all of the criteria included in the footnote to Table D–1 as enforceable components of the transportation conformity program for the South Coast nonattainment area for the 1997 PM<sub>2.5</sub> NAAQS. EPA is also proposing to approve the use of this ratio in transportation conformity determinations for the 2006 24-hour PM<sub>2.5</sub> NAAQS, but only until EPA finds adequate or approves budgets developed specifically for the 2006 24-hour PM<sub>2.5</sub> standard. Until that time, conformity will be determined using the budgets for the 1997 annual PM<sub>2.5</sub> NAAQS. EPA is not proposing, at this time, to approve the use of this ratio in plans for future PM standards or in the District’s new source review (NSR) permitting program.

**VI. EPA’s Proposed Actions and Consequences**

*A. EPA’s Proposed Approvals and Disapprovals*

For the reasons discussed above, EPA proposes to approve, with the exception of the contingency measures, California’s SIP for attaining the 1997 PM<sub>2.5</sub> NAAQS in the South Coast nonattainment area and to grant the State’s request for an extension of the attainment date. This SIP is composed of the relevant portions of the South Coast 2007 AQMP as revised in 2011 and the South Coast-specific portions of

<sup>39</sup>EPA cannot approve or find adequate the budgets included in the 2011 Progress Report

CARB's 2007 State Strategy as revised in 2009 and 2011.

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

(1) The 2002 base year emissions inventories as meeting the requirements of CAA section 172(c)(3) and 40 CFR 51.1008;

(2) the reasonably available control measures/reasonably available control technology demonstration as meeting the requirements of CAA sections 172(c)(1) and 40 CFR 51.1010;

(3) the reasonable further progress demonstration as meeting the requirements of CAA section 172(c)(2) and 40 CFR 51.1009;

(4) the attainment demonstration as meeting the requirements of CAA section 172(c)(1) and (6) and 40 CFR 51.1007;

(5) the air quality modeling as meeting the requirements of the CAA and EPA guidance;

(6) the revised updated 2012 RFP and 2014 attainment year motor vehicle emissions budgets as posted by CARB on June 20, 2011 contingent upon our receipt of a SIP revision, because they are derived from the approvable RFP and attainment demonstrations and meet the requirements of CAA section 176(c) and of 40 CFR 93, subpart A; and CARB's trading mechanism to be used in transportation conformity analyses as allowed under 40 CFR 93.124;

(7) SCAQMD's commitments to the adoption and implementation schedule for specific control measures listed in Tables 2 through 5 in Appendix F of the 2011 Progress Report to the extent that these commitments have not yet been fulfilled; and

(8) CARB's commitments to propose certain defined measures, as listed in Table B-1 on page 1 of Appendix B of the 2011 Progress Report and to achieve aggregate emission reductions by 2014 sufficient to provide for attainment of the 1997 PM<sub>2.5</sub> NAAQS as described in CARB Resolution 07-28, Attachment B.

EPA also proposes to concur with the State's determination under 40 CFR 51.1002(c) that NO<sub>x</sub>, SO<sub>x</sub>, and VOC are attainment plan precursors and ammonia is not an attainment plan precursor for attainment of the 1997 PM<sub>2.5</sub> NAAQS in the South Coast nonattainment area.

EPA proposes to grant, pursuant to CAA section 172(a)(2)(A) and 40 CFR 51.1004(a), California's request to extend the attainment date for the South Coast PM<sub>2.5</sub> nonattainment area to April 5, 2015.

EPA proposes to disapprove under CAA section 110(k)(3) the contingency

measures in the South Coast 2007 AQMP for failing to meet the requirements of CAA section 172(c)(9) and 40 CFR 51.1012.

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

EPA is committed to working with the District, CARB and SCAG to resolve the remaining issues with the SIP that make the current PM<sub>2.5</sub> attainment SIP for the South Coast nonattainment area not fully approvable under the CAA and the PM<sub>2.5</sub> implementation rule. However, should we finalize the proposed disapproval of the contingency measure provisions in the South Coast 2007 AQMP or finalize a disapproval of the transportation conformity emissions budgets, 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 under the CAA if California submits and we approve prior to the implementation of sanctions, SIP revisions that correct the deficiencies identified in our proposed action. 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> SIP for the South Coast nonattainment area two years after the effective date of any disapproval, should we not approve a SIP revision correcting the deficiencies within the two years.

Because we are proposing to approve the RFP and attainment demonstrations and the motor vehicle emission budgets, we are proposing to issue a protective finding under 40 CFR 93.120(a)(3) to the disapproval of the contingency measures. Without a protective finding, final disapproval would result in a conformity freeze under which only projects in the first four years of the most recent conforming RTP and TIP can proceed. During a freeze, no new RTPs, TIPs or RTP/TIP amendments can be found to conform. See 40 CFR 93.120(a)(2). Under a protective finding, however, final disapproval of the contingency measures would not result in a transportation conformity freeze in the South Coast PM<sub>2.5</sub> nonattainment area.

#### **VII. Statutory and Executive Order Reviews**

Under the CAA, 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 submittals, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. 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 partial approval and partial disapproval under CAA section 110 and subchapter I, part D will not in-and-of itself create any new information collection burdens but simply approves certain State requirements for inclusion into the SIP and disapproves others. 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 partial approval and partial disapproval of the SIP under CAA section 110 and subchapter I, part

D will not in-and-of itself create any new requirements but simply approves certain State requirements for inclusion into the SIP and disapproves others. 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 CAA 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 approval and 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 partially approve and partially 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 proposed to partially approve and partially disapprove 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 partially approve and partially 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 E.O. 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 E.O. has the potential to influence the regulation. This action is not subject to E.O. 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 partial approval and partial disapproval of the SIP under CAA section 110 and subchapter I, part D 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.

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 approve certain State requirements for inclusion into the SIP under CAA section 110 and subchapter I, part D and to disapprove others 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: June 29, 2011.

**Jared Blumenfeld,**

*Regional Administrator, EPA Region 9.*

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