

**ENVIRONMENTAL PROTECTION  
AGENCY**

**40 CFR Part 52**

[EPA-R09-OAR-2011-0589; FRL-9464-9]

**Approval of Air Quality Implementation  
Plans; California; San Joaquin Valley;  
Attainment Plan for 1997 8-Hour Ozone  
Standard**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** EPA is proposing to approve state implementation plan (SIP) revisions submitted by California to provide for attainment of the 1997 8-hour ozone national ambient air quality standards in the San Joaquin Valley (SJV). These SIP revisions are the 2007 Ozone Plan (revised 2008 and 2011) and SJV-related portions of the 2007 State Strategy (revised 2009 and 2011). EPA is proposing to approve the emissions inventories, reasonably available control measures demonstration, provisions for transportation control strategies and measures, provisions for advanced technology/clean fuels for boilers, reasonable further progress (RFP) and attainment demonstrations, transportation conformity motor vehicle emissions budgets for all RFP milestone years and the attainment year, contingency measures for failure to make RFP or attain, and Clean Air Act section 182(e)(5) new technologies provisions and associated commitment to adopt contingency measures. EPA is also proposing to approve commitments to measures and reductions by the SJV Air Pollution Control District and the California Air Resources Board. In the alternative, EPA is proposing to disapprove the SIP with respect to certain provisions for transportation control strategies and measures sufficient to offset any growth in emissions from growth in vehicle miles traveled or the number of vehicle trips.

**DATES:** Written comments must be received on or before October 17, 2011.

**ADDRESSES:** Submit comments, identified by docket number EPA-R09-OAR-2011-0622, by one of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the online instructions.

- *E-mail:* [wicher.frances@epa.gov](mailto:wicher.frances@epa.gov).
- *Mail or deliver:* Marty Robin, Office of Air Planning (AIR-2), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105.

*Instructions:* All comments will be included in the public docket without

change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through <http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> Web site is an “anonymous access” system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. If EPA cannot read your comments due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

*Docket:* The index to the docket for this action is available electronically on the <http://www.regulations.gov> Web site and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California 94105. While all documents in the docket are listed in the index, some documents 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
- San Joaquin Valley Air Pollution Control District, 1990 E. Gettysburg, Fresno, California 93726.

The SIP materials are also electronically available at: <http://aqmd.gov/aqmp/07aqmp/index.html>, [http://www.valleyair.org/Air\\_Quality\\_Plans/AQ\\_Final\\_Adopted\\_Ozone2007.htm](http://www.valleyair.org/Air_Quality_Plans/AQ_Final_Adopted_Ozone2007.htm) and <http://www.arb.ca.gov/planning/sip/sip.htm>.

**FOR FURTHER INFORMATION CONTACT:** Frances Wicher, Air Planning Office (AIR-2), U.S. Environmental Protection Agency, Region IX, (415) 972-3957, [wicher.frances@epa.gov](mailto:wicher.frances@epa.gov).

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

**I. The 1997 8-Hour Ozone Standard and the San Joaquin Valley Ozone Nonattainment Area**

*A. Background on the 1997 8-Hour Ozone NAAQS*

Ground-level ozone pollution is formed by the reaction of volatile organic compounds (VOC)<sup>1</sup> and nitrogen oxides (NO<sub>x</sub>) in the atmosphere in the presence of sunlight. These two pollutants, referred to as ozone precursors, are emitted by many types of pollution sources including on- and off-road motor vehicles and engines, power plants and industrial facilities, and smaller area sources such as lawn and garden equipment and paints.

Scientific evidence indicates that adverse public health effects occur following exposure to ozone, particularly in children and adults with lung disease. Breathing air containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma or other lung diseases. Ozone exposure also has been associated with increased susceptibility to respiratory

<sup>1</sup> California plans sometimes use the term Reactive Organic Gases (ROG) for VOC. These terms are essentially synonymous. For simplicity, we use the term VOC to mean either VOC or ROG.

infections, medication use, doctor visits, and emergency department visits and hospital admissions for individuals with lung disease. Ozone exposure also increases the risk of premature death from heart or lung disease. Children are at increased risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors, which increases their exposure. See “Fact Sheet, Proposal to Revise the National Ambient Air Quality Standards for Ozone,” January 6, 2010 and 75 FR 2938 (January 19, 2010).

On July 18, 1997, EPA revised the primary and secondary national ambient air quality standards (NAAQS or standard) for ozone to replace the existing 1-hour ozone standard of 0.12 parts per million (ppm) with an 8-hour standard set at 0.08 ppm. 62 FR 33856.<sup>2</sup> EPA revised the ozone standard after considering substantial evidence from numerous health studies demonstrating that serious health effects are associated with exposures to ozone concentrations above the levels of these revised standards.

#### B. The SJV 8-Hour Ozone Nonattainment Area

Following promulgation of a new or revised NAAQS, EPA is required by Clean Air Act (CAA) section 107(d) to designate areas throughout the Nation as attaining or not attaining the NAAQS. On April 15, 2004, EPA designated the SJV as nonattainment for the 1997 8-hour ozone standard and classified the area as “serious” under CAA section 181(a)(1) and 40 CFR 51.903(a), Table 1. See 69 FR 23858 at 23888–89 (April 30, 2004) and 40 CFR 81.305. The designation and classification became effective on June 15, 2004. In 2007, California requested that EPA reclassify the SJV from “serious” to “extreme” nonattainment for the 1997 8-hour ozone standard under CAA section 181(b)(3).<sup>3</sup> We granted California’s request on May 5, 2010 and reclassified the SJV to extreme nonattainment for the 1997 8-hour ozone standard effective June 4, 2010. See 75 FR 24409.

The SJV 8-hour ozone nonattainment area is home to almost 4 million people and is the Nation’s leading agricultural area. Stretching over 250 miles from north to south and averaging 80 miles

wide, it is partially enclosed by the Coast Mountain range to the west, the Tehachapi Mountains to the south, and the Sierra Nevada range to the east. It encompasses over 23,000 square miles and includes all or part of eight counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and the valley portion of Kern. For a precise description of the geographic boundaries of the San Joaquin Valley 8-hour ozone nonattainment area, see 40 CFR 81.305. The local air district which has primary responsibility for developing a plan to attain the 1997 8-hour ozone NAAQS in this area, is the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD or District).

Ambient 8-hour ozone values in the SJV vary depending on the location with the highest values being recorded on its eastern edge from Fresno to south of Bakersfield. For the 2008–2010 period, the 8-hour ozone design value for the area is 0.104 ppm, recorded at the Arvin-Bear Mountain Boulevard monitoring site southeast of Bakersfield.<sup>4</sup>

#### II. CAA and Regulatory Requirements for 1997 8-Hour Ozone Nonattainment Area SIPs

States must implement the 1997 8-hour ozone standard under Title 1, part D of the CAA, which includes section 172, “Nonattainment plan provisions,” and subpart 2, “Additional Provisions for Ozone Nonattainment Areas” (sections 181–185).

In order to assist states in developing effective plans to address their ozone nonattainment problem, EPA issued the 8-hour ozone implementation rule. This rule was finalized in two phases. The first phase of the rule addresses classifications for the 1997 8-hour ozone standard, applicable attainment dates for the various classifications, and the timing of emissions reductions needed for attainment. See 69 FR 23951 (April 30, 2004). The second phase addresses SIP submittal dates and the requirements for reasonably available control technology and measures (RACT and RACM), reasonable further progress (RFP) demonstration, modeling and attainment demonstrations, contingency measures, and new source review. See 70 FR 71612 (November 29, 2005). The

rule is codified at 40 CFR part 51, subpart X.<sup>5</sup> We discuss each of these CAA and regulatory requirements for 8-hour ozone nonattainment plans in more detail below.

#### III. California’s State Implementation Plan Submittals To Address Ozone Attainment in the San Joaquin Valley

##### A. California’s SIP Submittals

Designation of an area as nonattainment starts the process for a state to develop and submit to EPA a SIP providing for attainment of the NAAQS under title 1, part D of the CAA. For 8-hour ozone areas designated as nonattainment effective June 15, 2004, this SIP was due by June 15, 2007. See CAA 172(b) and 40 CFR 51.908(a) and 51.910.

California has made five SIP submittals to address the CAA’s planning requirements for attaining the 1997 8-hour ozone standard in the San Joaquin Valley. We refer to these submittals collectively as the “[SJV] 2007 8-Hour Ozone SIP.” The two principal ones are the SJVUAPCD’s 2007 Ozone Plan (also Plan) and the California Air Resources Board’s (CARB) State Strategy for California’s 2007 State Implementation Plan (2007 State Strategy).

##### 1. SJV 2007 Ozone Plan

The 2007 Ozone Plan was adopted by the District’s Governing Board on April 30, 2007 and by CARB on June 14, 2007 and submitted to EPA on November 16, 2007.<sup>6</sup> It includes an attainment demonstration, commitments by the SJVUAPCD to adopt control measures to achieve emissions reductions from sources under its jurisdiction (primarily stationary sources), and motor vehicle emissions budgets (MVEB) used for transportation conformity purposes. The attainment demonstration includes air quality modeling, an analysis of CAA section 172 reasonably available control

<sup>5</sup> EPA has revised or proposed to revise several elements of the 8-hour ozone implementation rule since its initial promulgation in 2004. See, e.g., 74 FR 2936 (January 16, 2009); 75 FR 51960 (August 24, 2010); and 75 FR 80420 (December 22, 2010). None of these revisions affect any provision of the rule that is applicable to EPA’s proposed actions on the SJV 2007 8-hour Ozone SIP.

<sup>6</sup> See San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) Governing Board Resolution 07–04–11a: In the Matter of Adopting the San Joaquin Valley Unified Air Pollution Control District 2007 Ozone Plan, April 30, 2007; CARB Resolution No. 07–20, June 14, 2007; letter, James N. Goldstene, Executive Officer, CARB to Wayne Natri, Regional Administrator, EPA Region 9, November 16, 2007 with enclosures; and letter, James N. Goldstene, Executive Officer, CARB to Wayne Natri, Regional Administrator, EPA Region 9, February 1, 2008 with enclosures (revising the RFP demonstrations for the South Coast and San Joaquin Valley air basins).

<sup>2</sup> In March 2008, EPA completed another review of the primary and secondary ozone standards and tightened them further by lowering the level for both to 0.075 ppm. 73 FR 16436 (March 27, 2008).

<sup>3</sup> See SJVUAPCD Governing Board Resolution No. 07–04–11a (April 30, 2007), p. 4; CARB Resolution No. 07–20 (June 14, 2007), p. 6; and letter, James Goldstene, Executive Officer, CARB to Wayne Natri, Regional Administrator, EPA Region 9, November 17, 2007.

<sup>4</sup> See EPA, Air Quality System Preliminary Design Report dated September 18, 2011 in the docket for today’s proposal. A design value is an ambient concentration calculated using a specific methodology to evaluate monitored air quality data and is used to determine whether an area’s air quality meets a NAAQS. The methodology for calculating design values for the 8-hour ozone NAAQS is found in 40 CFR part 50, Appendix I.

measures (RACM), base year and projected year emissions inventories, and contingency measures. On April 24, 2009, CARB submitted a minor amendment to the 2007 Ozone Plan's strategy to extend the adoption date for Control Measure S-Gov-5 "Composting Green Waste."<sup>7</sup>

## 2. CARB 2007 State Strategy

To demonstrate attainment, the 2007 Ozone Plan relies to a large extent on measures and commitments in CARB's 2007 State Strategy. The 2007 State Strategy was adopted by CARB on September 27, 2007 and submitted to EPA on November 16, 2007.<sup>8</sup> It describes CARB's overall approach to addressing, in conjunction with local plans, attainment of both the 1997 8-hour ozone and 1997 PM<sub>2.5</sub> NAAQS in all nonattainment areas in the State, including the San Joaquin Valley. It also includes CARB's commitments to propose 15 defined State measures<sup>9</sup> and to obtain specific amounts of aggregate reductions of VOC and NO<sub>x</sub> emissions in the SJV from sources under the State's jurisdiction, which are primarily on- and off-road motor vehicles and engines, consumer products, and fuels.

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 and adopted April 24, 2009 (2009 State Strategy Status Report).<sup>10</sup> This submittal updated the 2007 State Strategy to reflect its implementation during 2007 and 2008.

In today's proposal, we are evaluating only those portions of the 2007 State Strategy and its revisions that are

relevant for attainment of the 8-hour standard in the San Joaquin Valley.

## 3. CARB 2011 Ozone SIP Revisions

On July 29, 2011, CARB submitted the "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," dated June 20, 2011 and adopted July 21, 2011 (2011 Ozone SIP Revisions).<sup>11</sup> This submittal updates both the 2007 State Strategy and the SJV 2007 Ozone Plan. Specifically, it amends CARB's rulemaking schedule for the Agricultural Engines measure.<sup>12</sup> It also updates the emissions inventories, RFP demonstration, contingency measures, and transportation conformity MVEB for the SJV to reflect rule adoptions and improvements to emissions inventories. CARB provided supplemental documentation for the 2011 Ozone SIP Revisions on August 10, 2011 (2011 Ozone SIP Revision Supplement).<sup>13</sup>

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

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

CAA sections 110(a)(1) and (2) and 110(l) require a state to provide reasonable public notice and opportunity for public hearing prior to the adoption and submittal of a SIP or SIP revision. To meet this requirement, every SIP submittal should include evidence that adequate public notice was given and 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 2007 Ozone Plan. The District conducted public workshops, provided public

comment periods, and held a public hearing prior to the adoption of the Plan on April 30, 2007. See 2007 Ozone Plan, p. ES-1 and SJVUAPCD Governing Board Resolution, p. 3. CARB provided the required public notice and opportunity for public comment prior to its June 14, 2007 public hearing on the Plan. See CARB Resolution No. 07-20. The District also provided the required public notice and hearing on the 2009 revision to the Plan. See SJVUAPCD Governing Board Resolution No. 08-12-18, December 18, 2008, p. 2.

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. See 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 and its July 21, 2011 adoption of the 2011 Ozone SIP Revisions. See CARB Resolution No. 09-34 and CARB Resolution No. 11-22.

The SIP submittals include proof of publication for notices of District and CARB public hearings, as evidence that all hearings were properly noticed. We find, therefore, that each of the five submittals that comprise the SJV 2007 8-Hour Ozone SIP meets the procedural requirements for public notice and hearing in 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 submittal that EPA has not affirmatively determined to be complete or incomplete will be deemed complete by operation of law six months after the date of submittal. EPA's SIP completeness criteria are found in 40 CFR part 51, Appendix V.

The November 16, 2007 submittal of the 2007 Ozone Plan and the April 24, 2009 submittal revising the Plan became complete by operation of law on May 15, 2008 and October 24, 2009, respectively. The November 16, 2007 submittal of the 2007 State Strategy and the August 12, 2009 submittal of the 2009 revisions to the Strategy became complete by operation of law on May 16, 2008 and February 12, 2010, respectively. We found the submittal of the 2011 Ozone SIP Revisions complete on August 23, 2011.<sup>14</sup>

<sup>7</sup> See SJVUAPCD Governing Board Resolution No. 08-12-18, December 18, 2008; and letter, James N. Goldstene, Executive Officer, CARB, to Laura Yoshii, Acting Regional Administrator, EPA Region 9, April 24, 2009, with enclosures.

<sup>8</sup> See CARB Resolution No. 07-28, September 27, 2007 with attachments and letter, James N. Goldstene, Executive Officer, CARB, to Wayne Natri, Regional Administrator, EPA Region 9, November 16, 2007 with enclosures.

<sup>9</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, pp. 64-65 and CARB Resolution 7-28, Attachment B, p. 8.

<sup>10</sup> See CARB Resolution No. 09-34, April 24, 2009, with attachments and letter, James N. Goldstene, Executive Officer, CARB, to Laura Yoshii, Acting 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 is for informational purposes only. See Attachment A to the CARB Resolution No. 09-34.

<sup>11</sup> See CARB Resolution No. 11-22, July 21, 2011 and letter, James N. Goldstene, Executive Officer, CARB, to Jared Blumenfeld, Regional Administrator, EPA Region 9, July 29, 2011, with enclosures.

<sup>12</sup> In May 2011, CARB adopted other updates and revisions to its rulemaking schedule in the 2007 State Strategy. See CARB, *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*, submitted on May 18, 2011 (2011 Progress Report). We proposed to approve those revisions on July 13, 2011 (76 FR 41338).

<sup>13</sup> Letter, Lynn Terry, Deputy Executive Office, CARB, to Deborah Jordan, Director, Air Division, EPA Region 9, August 10, 2011.

<sup>14</sup> Letter, Deborah Jordan, EPA Region 9 to James Goldstene, CARB, August 23, 2011.

**IV. Review of the SJV 2007 Ozone Plan and the SJV Portion of the 2007 State Strategy**

We summarize our evaluation of the SJV 2007 8-Hour Ozone SIP'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 online at <http://www.regulations.gov> in docket number EPA-R09-OAR-2010-0589 or from the EPA contact listed at the beginning of this notice.

**A. Emissions Inventories**

**1. Requirements for Emissions Inventories**

CAA section 182(a)(1) requires each state with an ozone nonattainment area classified under subpart 2 to submit, within two years of the area's designation as nonattainment, a "comprehensive, accurate, current inventory of actual emissions from all sources" of the relevant pollutant or pollutants in accordance with guidance provided by EPA. CAA 182(a)(1), 40 CFR 51.915. EPA has issued the "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations," EPA-454/R-05-001, November 2005 ("EI Guidance") which provides guidance on how to develop base year and future year baseline emissions inventories for 8-hour ozone, PM<sub>2.5</sub>, and regional haze SIPs. For areas that were initially designated nonattainment for the 8-hour ozone standard in 2004, EPA recommends using calendar year 2002 as the base year for the inventory required by CAA section 182(a)(1). EI Guidance, p. 8.

Emissions inventories for ozone should include emissions of VOC, NO<sub>x</sub>, and carbon monoxide (CO) and represent an average summer week day during the ozone season. EI Guidance, pp. 14 and 17. States should include documentation in their submittals explaining how the emissions data were calculated. 70 FR at 71664 and EI

Guidance, p. 40. In estimating mobile source emissions, states should use the latest emissions models and planning assumptions available at the time the SIP is developed. 68 FR at 32854 and 70 FR 71666.

**2. Emissions Inventories in the SJV 2007 8-Hour Ozone SIP**

The base year and future year baseline inventories for NO<sub>x</sub> and VOC for the SJV ozone nonattainment area together with additional documentation for the inventories are found in Appendix B of the 2007 Ozone Plan and Appendices A and F of the 2007 State Strategy.<sup>15, 16</sup> These inventories represent average summer day (ozone season) emissions. An inventory is provided for the base year of 2002 and projected baseline inventories are provided for the RFP milestone years of 2008, 2011, 2014, 2017, and 2020; and the attainment year of 2023. The baseline inventories include reductions from federal, State, and District measures adopted prior to 2007. See 2007 State Strategy, Appendix A, p. 1. All inventories include emissions from point, area, on-road, and non-road sources. The 2002 inventory was projected to 2005 and future years using CARB's California Emissions Forecasting System (CEFSv 1.06). Both base year and projected baseline inventories use the most current version of California's mobile source emissions model, EMFAC2007, for estimating on-road motor vehicle emissions. EPA has approved this model for use in SIPs and transportation conformity analyses. 73 FR 3464 (January 18, 2008). See 2007 Ozone Plan, p. B-1.

As part of its 2011 Ozone SIP Revisions, CARB submitted revised base year and future year baseline inventories for the SJV. See Table 1 below. These revised inventories incorporate improved activity data and/or emissions factors for diesel trucks and buses and off-road equipment that were developed as part of CARB's December 2010 rulemakings amending its In-Use On-Road Truck and Bus Rule and In-Use Off-Road Equipment Rule.

They also reflect revisions to the methodology for estimating NO<sub>x</sub> emissions from natural-gas fueled industrial equipment as well as other improvements to the stationary source inventories made by the District in the period between adoption of the 2007 Ozone Plan and the initial draft of the 2008 PM<sub>2.5</sub> Plan. See Draft 2008 PM<sub>2.5</sub> Plan, Appendix B, December 2007. Collectively, these revisions reduce the total estimated 2002 base year NO<sub>x</sub> and VOC inventories by approximately 12 percent and 2.3 percent, respectively. 2011 Ozone SIP Revisions, p. B-9. For a more detailed discussion of these inventory changes, see TSD, section II.A.

The future year baseline inventories were also revised to reflect the effects of the 2007-2009 economic recession, which has significantly reduced activity levels in and associated emissions from the State's construction and goods movement sectors. CARB estimates economic growth rates will return to normal levels by the 2017-2018 time period. 2011 Ozone SIP Revisions, Appendix B. As a result, projected emission levels from these categories in the years up to 2017-2018 are now lower than were originally projected in the 2007 Ozone Plan and 2007 State Strategy as submitted in November 2007. These recession-related decreases in emissions do not in themselves affect the Plan's emissions inventories for the modeling validation years (1999/2000), the base year (2002), or future years (2020 and 2023) and thus do not change the carrying capacity estimates in the Plan (*i.e.*, they do not in themselves affect the target level of overall emissions reductions needed to demonstrate attainment), nor do they alter the 2002 base year inventory which provides the starting point for the RFP demonstration. The principal effect of the recession-related decreases in projected emissions estimates is to reduce the amount of reductions needed from the SIP's control strategy to demonstrate RFP in the years prior to 2018.

**TABLE 1—SAN JOAQUIN VALLEY REVISED BASE YEAR AND ATTAINMENT YEAR BASELINE EMISSIONS INVENTORY SUMMARY**  
[tons per summer day]

Emissions inventory category	NO <sub>x</sub>		VOC	
	2002	2023	2002	2023
Stationary and Area Sources .....	101	53	276	244
On-road Mobile Sources .....	312	69	110	37

<sup>15</sup> By "future year baseline inventories" or "projected baseline inventories," we mean projected emissions inventories for future years that account for, among other things, the ongoing effects

of economic growth and adopted emissions control requirements.

<sup>16</sup> Inventories for CO and non-anthropogenic sources (that is, biogenic or natural sources) were

developed for the air quality modeling and can be found at [http://www.arb.ca.gov/eos/SIP\\_Modeling/](http://www.arb.ca.gov/eos/SIP_Modeling/).

TABLE 1—SAN JOAQUIN VALLEY REVISED BASE YEAR AND ATTAINMENT YEAR BASELINE EMISSIONS INVENTORY SUMMARY—Continued [tons per summer day]

Emissions inventory category	NO <sub>x</sub>		VOC	
	2002	2023	2002	2023
Off-road Mobile Sources .....	152	73	71	57
Total .....	565	195	457	339

Source: 2011 8-Hour Ozone SIP Revision, Appendix B, p. B-3.

Note: 2023 emissions levels reflect control adopted through 2011.

3. Proposed Action on the Emissions Inventories

We have reviewed the 2002 base year emissions inventory in the SJV 2007 8-Hour Ozone SIP and the inventory methodologies used by the District and CARB and have determined that the inventory was developed consistent with CAA requirements as reflected in the 8-hour ozone implementation rule and EPA’s guidance. The revised 2002 base year inventory is comprehensive, accurate, and current inventory of actual emissions of 8-hour ozone precursors in the San Joaquin Valley nonattainment area. We therefore propose to approve the base year inventory as meeting the requirements of CAA section 182(a)(1) and EPA’s 8-hour ozone implementation rule. We provide more detail on our review of the inventories in section II.A. of the TSD for this proposal.

B. Reasonably Available Control Measures Demonstration and Control Strategy

1. Requirements for RACM and Control Strategies

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.” The 8-hour ozone implementation rule requires that for each nonattainment area that is required to submit an attainment demonstration, the state must also submit concurrently a SIP revision demonstrating that it has adopted all RACM necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP requirements. 40 CFR 51.912(d).

EPA has previously provided guidance interpreting the RACM

requirement in the General Preamble at 13560<sup>17</sup> and in a memorandum entitled “Guidance on the Reasonably Available Control Measure Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas,” John Seitz, Director, OAQPS to Regional Air Directors, November 30, 1999 (Seitz memo). In summary, EPA guidance provides that, to address the requirement to adopt all RACM, states should consider all potentially reasonable control measures for source categories in the nonattainment area to determine whether they are reasonably available for implementation in that area and whether they would, if implemented individually or collectively, advance the area’s attainment date by one year or more. See Seitz memo and General Preamble at 13560.<sup>18</sup> 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.<sup>19</sup>

<sup>17</sup> The “General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,” published at 57 FR 13498 on April 16, 1992, describes EPA’s preliminary view on how we would interpret various SIP planning provisions in title I of the CAA as amended in 1990, including those planning provisions applicable to the 1-hour ozone standard. EPA continues to rely on certain guidance in the General Preamble to implement the 8-hour ozone standard under title I.

<sup>18</sup> See also “State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas,” 44 FR 20372 (April 4, 1979) and Memorandum dated December 14, 2000, from John S. Seitz, Director, Office of Air Quality Planning and Standards, “Additional Submission on RACM From States With Severe One-Hour Ozone Nonattainment Area SIPs.”

<sup>19</sup> For ozone nonattainment areas classified as moderate or above, CAA section 182(b)(2) also requires implementation of RACT for all major sources of VOC and for each VOC source category for which EPA has issued a Control Techniques Guideline (CTG). CAA section 182(f) requires that RACT under section 182(b)(2) also apply to major stationary sources of NO<sub>x</sub>. In extreme areas, a major source is a stationary source that emits or has the potential to emit at least 10 tons of VOC or NO<sub>x</sub> per year. CAA sections 182(e) and (f). Under the 8-hour ozone implementation rule, states were required to submit SIP revisions meeting the RACT

CAA section 172(c)(6) requires nonattainment plans to “include enforceable emission limitations, and such other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emission rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to provide for attainment of such standard in such area by the applicable attainment date \* \* \* .” See also CAA section 110(a)(2)(A). The ozone implementation rule requires that all control measures needed for attainment be implemented no later than the beginning of the attainment year ozone season. 40 CFR 51.908(d). The attainment year ozone season is defined as the ozone season immediately preceding a nonattainment area’s attainment date. 40 CFR 51.900(g).

2. RACM Demonstration and the Control Strategy in the SJV 2007 8-Hour Ozone SIP

For the 2007 Ozone Plan and the 2007 State Strategy, the District, CARB, and the local agencies (through the SJV’s eight metropolitan planning organizations (MPO)) each undertook a process to identify and evaluate potential reasonably available control measures that could contribute to expeditious attainment of the 8-hour ozone standards in the SJV. We describe each agency’s efforts below. We also discuss CARB’s and the District’s adopted control strategies including the provisions for the development of new

requirements of CAA sections 182(b)(2) and 182(f) no later than 27 months after designation for the 8-hour ozone standard (September 15, 2006 for areas designated in April 2004) and to implement the required RACT measures no later than 30 months after that submittal deadline. See 40 CFR 51.912(a). California submitted the CAA section 182 RACT SIP for SJV in January 2007 and a revised RACT SIP in June 2009. EPA proposed to partially approve and partially disapprove that 2009 SJV RACT SIP on August 31, 2011. See Partial Approval and Partial Disapproval of Air Quality Implementation Plans; California; San Joaquin Valley; Reasonably Available Control Technology for Ozone; Proposed rule, signed August 31, 2011.

and improved technologies under CAA section 182(e)(5).

a. SJVUAPCD's RACM Analysis and Adopted Control Strategy

The District's RACM analysis, which focuses on stationary and area source controls, is described in Chapter 6 and Appendix I of the 2007 Ozone Plan. To identify potential RACM, the District reviewed measures from a number of sources including measures in other nonattainment areas' plans and measures suggested by the public during development of the Plan. 2007 Ozone Plan, pp. 6–2 to 6–3. The identified potential measures, as well as existing District measures, are described by emissions inventory category in Appendix I of the Plan. From the set of identified potential controls, the District selected measures for adoption and implementation based on the technological and economic feasibility of emissions controls, the potential magnitude and timing of emissions reductions, cost effectiveness, and other acceptable criteria for determining RACM. 2007 Ozone Plan, p. 6–3.

After completing its RACM analysis for stationary and area sources under its jurisdiction, the District developed its "Stationary Source Regulatory Implementation Schedule" (2007 Ozone Plan, Table 6–1), which gives the

schedule for regulatory adoption and implementation of the measures determined to be feasible. The District also identified a number of source categories for which feasibility studies would be undertaken to refine the inventory and evaluate potential controls. These categories and the schedule for studying them are listed in Table 6–2 of the 2007 Ozone Plan.

In the five years prior to the adoption of the 2007 Ozone Plan, the District developed and implemented comprehensive plans to address attainment of the PM<sub>10</sub> standards (2003 PM<sub>10</sub> Plan, approved 69 FR 30005 (May 26, 2004)) and the 1-hour ozone standards (2004 Extreme Ozone Attainment Plan, approved 75 FR 10420 (March 8, 2010)). These plans have resulted in the adoption by the District of many new rules and revisions to existing rules for stationary and area sources. For the most part, the District's current rules are equivalent to or more stringent than those developed by other air districts. In addition to these stationary and area source measures, the District has also adopted an indirect source review rule, Rule 9510, to address increased indirect emissions from new industrial, commercial and residential developments. See SJVUAPCD Rule 9510 "Indirect Source Review," adopted December 15, 2005,

approved 76 FR 26609 (May 9, 2011). The District also operates incentive grant programs to accelerate turnover of existing stationary and mobile engines to cleaner units. See 2007 Ozone Plan, chapters 7 and 8 and SJV Ozone Mid-Course Review, Section 5 and 6.<sup>20</sup>

For the 2007 Ozone Plan, the District identified and committed to adopt and implement 19 new control measures for NO<sub>x</sub> and VOC and to achieve certain aggregate emissions reductions of NO<sub>x</sub> and VOC. See 2007 Ozone Plan, Table 6–1 (revised December 18, 2008). In Table 2 below, we list these measures, which mostly involve strengthening existing District rules, their adoption dates and current SIP approval status. As can be seen from Table 2, the District has completed action on all of its rule adoption commitments. Table 6–1 in the Plan shows estimated emissions reductions from each rule for milestone years from 2008 to 2020, 2012, and the attainment year of 2023. The District's commitment, however, is only to the aggregate emissions reductions of NO<sub>x</sub> and VOC in each year. 2007 Ozone Plan, p. 6–5 and SJVUAPCD Governing Board Resolution 07–04–11a, p. 6. We show these commitments in Table 3 below. Table 4 gives the total estimate of SIP-creditable reductions achieved by the District to date.

TABLE 2—SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT 2007 OZONE PLAN SPECIFIC RULE COMMITMENTS

Measure No. & description	District rule No.	Adoption date		SIP status
		Anticipated	Actual	
S–GOV–1 Composting Biosolids .....	4565	1st Q—2007 .....	March 2007 .....	Proposed: August 31, 2011 (signature date).
S–AGR–1 Open Burning (Phase IV) ....	4103	2nd Q—2010 .....	April 2010 .....	Proposed: 76 FR 40660 (July 11, 2011).
S–SOL–11 Solvents:				
Organic Solvents .....	4661	3rd Q—2007 .....	September 2007 .....	75 FR 24406 (May 5, 2010).
Organic Solvent Degreasing .....	4662		September 2007 .....	74 FR 37948 (July 30, 2009).
Organic Solvent Cleaning .....	4663		September 2007 .....	74 FR 37948 (July 30, 2009).
S–COM–5 Stationary Gas Turbines ....	4703	3rd Q—2007 .....	September 2007 .....	74 FR 53888 (October 21, 2009).
S–IND–24 Soil Decontamination .....	4651	3rd Q—2007 .....	September 2007 .....	74 FR 52894 (October 15, 2009).
S–IND–6 Polystyrene Foam .....	4682	3rd Q—2007 .....	September 2007 .....	76 FR 41745 (July 15, 2011).
S–PET–1&2 Gasoline Storage & Transfer.	4623 4624	4th Q—2007 .....	December 2007 .....	74 FR 56120 (October 30, 2009).
S–PET–3 Aviation Fuel Storage .....		3rd Q—2007 .....	Found not feasible ...	Found infeasible.
S–COM–1 Large Boilers .....	4306 4320	3rd Q—2008 .....	October 2008 .....	75 FR 1715 (January 13, 2010) 76 FR 16696 (March 25, 2011).
S–COM–2 Boilers, Steam Generators and Process Heaters (2 to 5 MMBtu/hr).	4307	3rd Q—2008 .....	October 2008 .....	75 FR 1715 (January 13, 2010).
S–COM–7 Glass Melting Furnaces <sup>1</sup> ....	4354	3rd Q—2008 .....	October 2008 .....	76 FR 53640 (August 29, 2011).
S–SOL–20 Graphic Arts .....	4607	4th Q—2008 .....	December 2008 .....	74 FR 52894 (October 15, 2009).
S–COM–9 Residential Water Heaters	4902	1st Q—2009 .....	March 2009 .....	75 FR 24408 (May 5, 2010).
S–GOV–5 Composting Green Waste ..	4566	4th Q 0 2010 .....	August 2011 .....	Rule adopted.
S–IND–21 Flares .....	4311	2nd Q—2009 .....	June 2009 .....	Proposed: 76 FR 52623 (August 8, 2011).
S–IND–14 Brandy and Wine Aging .....	4695	3rd Q—2009 .....	September 2009 .....	76 FR 47076 (August 4, 2011).

<sup>20</sup> SJVAPCD, 2010 Ozone Mid-Course Review, May 2011.

TABLE 2—SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT 2007 OZONE PLAN SPECIFIC RULE COMMITMENTS—Continued

Measure No. & description	District rule No.	Adoption date		SIP status
		Anticipated	Actual	
S-SOL-1 Architectural Coatings .....	4601	4th Q—2009 .....	December 2009 .....	Proposed: 76 FR 35167 (June 16, 2011).
S-AGR-2 Confined Animal Facilities ...	4570	2nd Q—2010 .....	October 2010 .....	Proposed: August 31, 2011 (signature date).
S-SOL-6 Adhesives .....	4653	3rd Q—2010 .....	September 2010 .....	Rule submitted.

Source: List of measures and anticipated adoption dates: 2007 Ozone Plan, Table 6-1, revised December 18, 2009.

TABLE 3—SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT 2007 OZONE PLAN AGGREGATE EMISSIONS REDUCTIONS COMMITMENTS [Tons per summer day]

	2011	2012	2014	2017	2020	2023
NO <sub>x</sub> .....	4.4	6.0	6.3	7.8	8.0	8.2
VOC .....	15.3	26.5	40.5	42.2	44.5	46.3

Source: 2007 Ozone Plan, Table 6-1, revised December 18, 2008.

TABLE 4—SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT 2007 OZONE PLAN AGGREGATE CREDITABLE EMISSIONS REDUCTIONS FROM ADOPTED RULES (Tons per summer day)

	2011	2012	2014	2017	2020	2023
NO <sub>x</sub> .....	3.6	6.2	10.3	11.1	12.0	12.6
VOC .....	34.3	37.7	39.8	41.3	43.1	44.5

Source: TSD, Table D-5.

The District also included in its Plan programs for incentive grants and to develop innovative strategies such as green contracting and energy conservation. These are discussed below in section II.B.2.d.

b. The Local Jurisdictions’ RACM Analysis

The local jurisdictions’ RACM analysis was conducted by the SJV’s eight MPOs.<sup>21</sup> This analysis focused on potential NO<sub>x</sub> emissions reductions from transportation control measures (TCM). TCMs are, in general, measures designed to reduce emissions from on-road motor vehicles through reductions in vehicle miles traveled or traffic congestion. The analysis is summarized in Chapter 9 of the 2007 Ozone Plan and described in detail in Appendix C.

For the 2007 Ozone Plan, the SJV MPOs evaluated RACM using a three-step process of developing a list of

potential reasonably available local controls, estimating the maximum potential emissions reductions from the identified measures, and then comparing these reductions against the level of reductions needed to advance attainment of the 8-hour ozone standard in the SJV. Through this process, the MPOs determined that there were no additional local RACM for NO<sub>x</sub>, beyond those measures already adopted, that could advance attainment of the 8-hour ozone standard in the SJV. 2007 Ozone Plan, p. 9-7.

c. 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 stringent control measures for on-road and off-road mobile sources and the fuels that power them. 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.

According to the 2007 State Strategy, California’s new vehicle emissions standards have reduced new car emissions by 99 percent and new truck emissions by 90 percent from uncontrolled levels, and new lawn and garden equipment, recreational vehicles and boats, and other off-road sources are 80-98 percent cleaner than their uncontrolled counterparts. 2007 State Strategy, p. 37. In addition to its new vehicle and engine standards, the State has adopted many measures that focus on achieving reductions from in-use mobile sources that include more stringent inspection and maintenance requirements in California’s Smog Check program, 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

<sup>21</sup> These eight MPOs represent the eight counties in the San Joaquin Valley nonattainment area: The San Joaquin Council of Governments, the Stanislaus Council of Governments, the Merced County Association of Governments, the Madera County Transportation Commission, the Council of Fresno County Governments, Kings County Association of Governments, the Tulare County Association of Governments and the Kern Council of Governments.

waiver measures or waiver measures) and those for which the State is not required to obtain a waiver (non-waiver measures). Emissions reductions from waiver measures are fully creditable in attainment and RFP demonstrations and may be used to meet other CAA requirements, such as contingency measures. See TSD, section II.D.3.a.i. and EPA's proposed and final approval of the SJV 1-Hour Ozone Plan at 74 FR 33933, 33938 (July 14, 2009) and 75 FR 10420 (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 measures.<sup>22</sup> Through this process, CARB identified and has committed to develop 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. They build on CARB's already extensive existing program described above, which addresses emissions from

all types of mobile sources through both regulations and incentive programs. See TSD, Appendix A. Table 5 below lists the defined measures in the 2007 State Strategy that are applicable to the SJV and their current adoption and approval status. Table 6 provides the CARB's current estimates of the emissions reductions in the SJV from these measures, which are part of the State's commitment to achieve the tonnage of reductions needed for attainment. Table 7 provides the estimates of the emissions reductions that are currently SIP creditable.

TABLE 5—2007 STATE STRATEGY DEFINED MEASURES APPLICABLE TO THE SJV, SCHEDULE FOR CONSIDERATION AND CURRENT STATUS

State measures	Expected action year	Current status
Smog Check Improvements	2007–2009	Elements approved 75 FR 38023 (July 1, 2010). <sup>23</sup>
Expanded Vehicle Retirement (AB 118) Modification to Reformulated Gasoline Program.	2007	Adopted by CARB, June 2009; by BAR, September 2010.
Cleaner In-Use Heavy Duty Trucks	2007, 2008, 2010	Proposed for approval: 76 FR 40652 (July 11, 2011).
Accelerated Introduction of Cleaner Locomotives.	2008	Prop 1B bond funds awarded to upgrade line-haul locomotive engines not already accounted for by enforceable agreements with the railroads. Those cleaner line-hauls will begin operation by 2012.
Cleaner In-Use Off-Road Engines	2007, 2010	Waiver decision pending.
Cleaner In-Use Agricultural Equipment	2013	Incentive program in progress. Additional action expected 2013.
New Emissions Standards for Recreational Boats.	2013	Action expected 2013.
Expanded Off-Road Recreational Vehicle Emissions Standards.	2013	Action expected 2013.
Enhanced Vapor Recovery for Above Ground Storage Tanks.	2008	Adopted June 2007. Requirements implemented through District Rule 4621.
Additional Evaporative Emissions Standards.	2013	Action expected 2013.
Consumer Products Program (I & II)	2008, 2009, 2011	Approved, 74 FR 57074 (November 4, 2009) and 76 FR 27613 (May 12, 2011).
Pesticide Regulation (DPR)	2008, 2009	Submitted October 2009, revisions submitted August 2011.

Source: 2009 State Strategy Status Report, p.4, 2011 Progress Report, Table 1, and 2011 Ozone SIP Revisions, Appendix A–3. Additional information from <http://www.ca.arb.gov>.

TABLE 6—EXPECTED EMISSIONS REDUCTIONS FROM DEFINED MEASURES IN THE SAN JOAQUIN VALLEY [Tons per summer day 2023]

State measure	NO <sub>x</sub>	VOC
Smog Check Improvements (BAR)	1.0	3.0
Cleaner In-Use Heavy-Duty Trucks	16.9	0.9
Cleaner In-Use Off-Road Equipment	1.9	0.2
Consumer Products Program	—	5.0
Pesticides: DPR Regulation	—	1.2

TABLE 6—EXPECTED EMISSIONS REDUCTIONS FROM DEFINED MEASURES IN THE SAN JOAQUIN VALLEY—Continued [Tons per summer day 2023]

State measure	NO <sub>x</sub>	VOC
Totals	19.8	10.3

Source: 2011 Ozone SIP Revisions Supplement, Attachment 1.

TABLE 7—CURRENTLY CREDITABLE EMISSIONS REDUCTIONS FROM DEFINED MEASURES IN THE SAN JOAQUIN VALLEY [Tons per summer day 2023]

State measure	NO <sub>x</sub>	VOC
Smog Check Improvements (BAR)	1.0	3.0
Cleaner In-Use Heavy-Duty Trucks	16.9	0.9
Cleaner In-Use Off-Road Equipment	1.9	0.2
Consumer Products Program	—	5.0

<sup>22</sup> This process is described in the 2007 Ozone Plan at p. 9–10. More information on this public process including presentations from the workshops and symposium that preceded adoption of the 2007 State Strategy can be found at

<http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm>.

<sup>23</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 Ozone SIP Revisions do not include reductions from AB 2289 improvements. 2011 Ozone SIP Revisions, Appendix C.

TABLE 7—CURRENTLY CREDITABLE EMISSIONS REDUCTIONS FROM DEFINED MEASURES IN THE SAN JOAQUIN VALLEY—Continued

[Tons per summer day 2023]

State measure	NO <sub>x</sub>	VOC
Totals .....	19.8	9.1

Source: 2011 Ozone SIP Revisions Supplement, p. attachment 1.

The 2007 State Strategy also includes an enforceable commitment to achieve aggregate emissions reductions of 46 tpd NO<sub>x</sub> and 25 tpd VOC in the SJV by the attainment year of 2023 that are sufficient, in combination with existing SIP-creditable measures, the District's commitments, and commitments for reductions under the CAA section

182(e)(5) new technologies provision, to attain the 1997 8-hour ozone standard in the San Joaquin Valley by the applicable attainment date of June 15, 2024. CARB also made enforceable commitments to achieve aggregate emissions reductions in the SJV in the RFP milestone years of 2014, 2017, and 2020. See 2007 State Strategy, p. 63; CARB Resolution 07–28, Attachment B, p. 6; and 2009 State Strategy Status Report, p. 21. See Table 8 below. The nature of these commitments 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 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.

TABLE 8—CARB COMMITMENTS TO SPECIFIC AGGREGATE EMISSIONS REDUCTIONS

[Tons per summer day]

	2014	2017	2020	2023	2023 CAA 182(e)(5)
VOC .....	23	– <sup>1</sup>	24	25	– <sup>1</sup>
NO <sub>x</sub> .....	76	88–93	56	46	81

Source: 2009 State Strategy Status Report, p. 23.

<sup>1</sup> No commitment to VOC reductions in 2017 or to VOC reductions pursuant to CAA 182(e)(5) advanced technologies provision.

d. Section 182(e)(5) New or Improved Technologies Provisions

For ozone nonattainment areas classified as extreme, the CAA recognizes that an attainment demonstration may need to rely to a certain extent on new or evolving technologies, given the relatively long time between developing the initial plan and attaining the standard and the degree of emissions reductions needed to attain. To address these needs, CAA section 182(e)(5) authorizes EPA to approve provisions in an extreme area plan which “anticipate development of new control techniques or improvement of existing control technologies,” and to approve an attainment demonstration based on such provisions, if the State demonstrates that: (1) Such provisions are not necessary to achieve the incremental emission reductions required during the first 10 years after November 15, 1990;<sup>24</sup> and (2) the State has submitted enforceable commitments to develop and adopt contingency measures to be implemented if the anticipated technologies do not achieve the planned reductions. CAA 182(e)(5).

<sup>24</sup> Consistent with provisions in the 8-hour ozone implementation rule at 40 CFR part 51, subpart X, we interpret this 10-year timeframe to run from the effective date of designation for the 1997 8-hour ozone standard, that is, June 15, 2004.

The State must submit these contingency measures to EPA no later than 3 years before proposed implementation of these long-term measures, and the contingency measures must be “adequate to produce emissions reductions sufficient, in conjunction with other approved plan provisions, to achieve the periodic emissions reductions required by [CAA sections 182(b)(1) or (c)(2)] and attainment by the applicable dates.” *Id.*

The General Preamble further provides that the new technology measures contemplated by section 182(e)(5) may include those that anticipate future technological developments as well as those that require complex analyses, decision making and coordination among a number of government agencies. See General Preamble at 13524. An attainment demonstration that relies on long-term new technology measures under section 182(e)(5) must identify any such measures and contain a schedule outlining the steps leading to final development and adoption of the measures. *Id.* The General Preamble also provides that EPA will set a schedule for implementing contingency measures upon making a finding of failure to meet a milestone, *i.e.*, to achieve the periodic emissions reductions required by CAA

sections 182(b)(1) or (c)(2) or to attain by the applicable dates. *Id.*

CARB and the District have demonstrated a clear need for emissions reduction from new control technologies or improvement of existing technologies to reduce air pollution in the SJV. Adopted control measures and enforceable commitments discussed above provide the majority, but not all, of the emissions reductions needed to attain the 1997 8-hour ozone standards in the SJV. See 2007 State Strategy, p. 54. For the balance of the reductions needed to attain by June 15, 2024, the 2007 State Strategy and 2007 Ozone Plan rely on CARB's commitments to achieve additional reductions of 81 tpd NO<sub>x</sub> by 2023 from new and improved technologies. See 2009 State Strategy Status Report, p. 20. The new technology provisions (also called “long-term measures”) described in the 2007 State Strategy and 2007 Ozone Plan are not relied on to demonstrate RFP in any year and are accompanied by an enforceable commitment by the State to adopt and submit contingency measures no later than 3 years before implementation, as required by CAA section 182(e)(5).

CARB and the California districts have a longstanding history of successfully adopting and implementing

technology-advancing regulations and innovative control measures. They have worked closely with research scientists and the regulated industry to develop regulations that are stringent enough to compel technology development yet flexible enough to encourage industry innovations. CARB has provided a list of potential long-term control measures which include reduced deterioration of emission control equipment in passenger vehicles, tighter engine emission standards, cleaner ground support equipment at airports, and prioritizing federal transportation funding to support air quality goals. See pp. 56–57 of the 2007 State Strategy. The District has also provided a list of potential advanced control technologies and innovative approaches that could achieve the long-term reductions. See 2007 Ozone Plan, pp. 11–5 to 11–10, and Chapters 7 and 8. CARB updated its list of potential long-term measures in both the 2009 State Strategy Status Report and the 2011 Ozone SIP Revisions. See 2009 State Strategy Status Report, pp. 25–27 and 2011 Ozone SIP Revisions, Appendix A, pp. A–8 to A–12.

To implement the long-term strategy, CARB has committed to a process that will ensure that the long-term measures and reductions are achieved by the attainment year. CARB is coordinating a government, private and public effort to establish emissions reductions goals for critical mobile and stationary source categories. The effort includes periodic assessment of technology advancement opportunities and updates to the Board and the public regarding new emission control opportunities and progress in achieving the long-term measure reductions. CARB's commitment for implementing the long-term strategy also includes (a) Sharing results through periodic briefings to the Board, workshops, conferences, symposia, Web site postings and other means, (b) working to secure resources for continuing research and development of new technologies, and (c) developing schedules for moving from research to implementation. *Id.*

An initial step in the long-term strategy was the signing of a Memorandum of Agreement (MOA) between the U.S. EPA, CARB and the South Coast and San Joaquin Valley Air Districts to commit to developing and testing new sustainable technologies to accelerate progress in meeting air quality goals. The goal of the MOA is to help align agency research resources to evaluate innovative technologies and assess new monitoring equipment to better measure mobile and stationary source emissions. The MOA agencies

have also established a Clean Air Technology Initiative to help bring together the necessary participants (*e.g.*, scientists, engineers, analysts and agency specialists) to achieve the goals of the MOA. 2009 State Strategy Status Report, pp. 25–27. For the SJV, the focus is on the area that straddles Kern and Tulare counties. This area, which frequently exceeds health-based air standards, has high levels of mobile source emissions from the goods movement corridors of Highway 99 and Interstate 5 as well as stationary source emissions from a variety of energy production facilities, farms, and agricultural processing operations. See 2011 Ozone SIP Revisions, p. A–9. For a summary of San Joaquin Valley funded projects, see <http://epa.gov/region9/cleantech/projects.html>.

Other State programs that may achieve emissions reductions to help meet CARB's 182(e)(5) commitment include: potential co-benefits from California's climate change programs where State legislation (Assembly Bill 32—Global Warming Solutions Act of 2006 (AB 32)) aims to reduce Greenhouse Gas (GHG) in 2020 to 1990 levels or by about 30 percent; California's Air Quality Improvement Program (AQIP), an incentive program that supports the deployment of hybrid and zero-emission vehicles and other advanced technologies; and California's annual research program, which identifies projects and provides funding to help provide timely scientific and technical information needed for air quality control programs.

In addition, the District is pursuing innovative strategies. Its "Fast Track" strategy includes opportunities to reduce emissions from heavy-duty trucks by shifting goods movement to lower-emission alternatives, such as short-sea shipping. In 2010, the U.S. Department of Transportation awarded the Ports of Stockton, West Sacramento, and Oakland with a \$30 million grant to move goods between Oakland and the two inland ports over the San Joaquin-Sacramento Delta. The District has also adopted a Technology Advancement Program (TAP) which is its strategic approach to encouraging innovation and development of new emission reduction technologies. The TAP will consist of an ongoing review of new technology concepts, interagency partnerships, funding for technology advancement programs, and collaborations to build and expand local capacity for research and development in the SJV. For more information about the SJV TAP, see [http://www.valleyair.org/Grant\\_Programs/TAP/tap\\_idx.htm](http://www.valleyair.org/Grant_Programs/TAP/tap_idx.htm). In addition to the TAP, The District has established

a Regional Energy Efficiency Strategy to support technology development and deployment in the Valley. The Regional Energy Efficiency Program lays out goals and measures that will guide the District's actions to reduce emissions caused by electricity and natural gas consumption in residential, industrial, and institutional settings. See 2011 Ozone SIP Revisions, pp. A–11 to A–12.

Along with its commitment to the process discussed above, CARB has committed to submit an 8-hour ozone SIP revision by 2020 that will: (1) Reflect modifications to the 2023 emission reduction target based on updated science and (2) identify additional strategies and implementing agencies needed to achieve the needed reductions by 2023. See 2011 Ozone SIP Revisions, p. A–8. The District has also committed to submit by late 2019 SIP revisions containing the control measures that are necessary to achieve the long-term measure reductions by the attainment year and to make any other needed revisions to the SIP. See SJVUAPCD Governing Board Resolution No. 07–04–11a p. 6.

CARB's 2011 Ozone SIP Revisions update and reaffirm both the "long-term strategy commitment to identify and implement advanced technologies to reduce ozone-forming emissions in the State Strategy" and the State's enforceable commitment "to develop, adopt, and submit contingency measures by 2020 if advanced technology measures do not achieve planned reductions." See CARB Resolution 11–22, July 21, 2011. Finally, CARB has committed to meet annually with EPA to discuss strategies to maximize the clean air benefits of emerging advanced technologies and to provide annual summaries of strategies and activities. See letter, James Goldstene, Executive Officer, CARB, to Jared Blumenfeld, Regional Administrator, EPA Region 9, August 29, 2011.

### 3. Proposed Actions on the RACM Demonstration and Control Strategy

As described above, the District evaluated a range of potentially available measures for inclusion in its 2007 Ozone Plan and committed to adopt those it found to be reasonably available for implementation in the SJV. The process and the criteria the District used to select certain measures and reject others are consistent with EPA's RACM guidance. We also describe above the measure evaluation processes undertaken by the SJV MPOs and the State. Their processes are also consistent with EPA's RACM guidance.

See, e.g., General Preamble at 13560 and Seitz memo.

Based on our review of these RACM analyses and the District's and California's adopted rules, as well as their commitments to adopt and implement additional controls, we propose to find that there are, at this time, no additional reasonably available control measures that would advance attainment of the 1997 8-hour ozone standard in the SJV. Therefore, we propose to find that the SJV 2007 Ozone Plan, together with the 2007 State Strategy, provides for the implementation of all RACM as required by CAA section 172(c)(1).

Because the SJV is designated and classified as extreme nonattainment for the 1997 8-hour ozone NAAQS, CAA sections 182(b)(2) and 182(f) require the implementation of RACT for all major sources of VOC or NO<sub>x</sub> and all VOC sources covered by an EPA-issued CTG in this area. California submitted the District's revised 8-hour ozone RACT SIP (adopted April 16, 2009) on June 18, 2009. We have recently proposed to partially approve and partially disapprove this RACT SIP, based on our proposal to determine that the RACT SIP does not adequately demonstrate compliance with section 182 RACT requirements for ten source categories. See Partial Approval and Partial Disapproval of Air Quality Implementation Plans; California; San Joaquin Valley; Reasonably Available Control Technology for Ozone; Proposed rule, signed August 31, 2011.

Under EPA's longstanding policy, a SIP meets the RACM requirement in CAA section 172(c)(1) if it includes all reasonably available measures that individually or in combination with other such reasonably available measures can advance attainment of the relevant standard by one year or more. Based on our evaluation of the potential emission reductions from the missing section 182 RACT controls, we propose to determine that the additional reductions from these rules in combination with other potential RACM would not result in earlier attainment of the 1997 8-hour ozone standard in the SJV. See TSD, section II.C.3.

We propose to approve the SJVUAPCD's commitments to achieve specific aggregate emissions reductions of NO<sub>x</sub> and VOC by specific years as given in Table 6–2 of the 2007 Ozone Plan and shown in Table 3 above. We are not proposing to act on SJVAPCD's commitments to adopt and implement specific control measures on the schedule identified in Table 6–1 (as amended December 18, 2008) in the 2007 Ozone Plan because, as of August

18, 2011 with the adoption of the Rule 4655, these commitments have all been fulfilled.

We are proposing to approve CARB's commitments to propose certain defined measures, as given in Table B–1 in 2011 Progress Report, Appendix B and Appendix A–7 of the 2011 Ozone SIP Revisions. We are also proposing to approve CARB's commitment to achieve the total aggregate emissions reductions necessary to demonstrate RFP and to attain the 1997 8-hour ozone standard in the SJV as given in the 2009 State Strategy Status Report, p. 20 and shown in Table 8 above. See CARB Resolution 07–28 (September 27, 2007), Appendix B, p. 3.

Finally, we are proposing to approve the CARB's and District's long-term strategy provisions and related commitments in the SJV 2007 8-Hour Ozone SIP under the new technology provisions of CAA section 182(e)(5). This proposal is based on our proposed findings that they satisfy the two criteria in CAA section 182(e)(5)(A) and (B). First, the SJV 2007 8-Hour Ozone SIP does not rely on any of the new technology reductions to demonstrate RFP in any milestone year between 2008 and 2020. CARB has committed to achieve 81 tpd of NO<sub>x</sub> reductions through new technology measures approved under section 182(e)(5) only in the attainment year (2023). We note that the amount and relative proportion of reductions from measures scheduled for long-term adoption under section 182(e)(5), as compared to measures already adopted in regulatory form or scheduled for near-term adoption, should clearly decrease in any future SIP update, and that EPA will not approve a SIP revision that contains an increase in the amount or relative proportion of section 182(e)(5) new technology measures without a convincing showing in a SIP revision that the technologies relied upon in the near-term rules have been found to be technologically infeasible or ineffective in achieving the expected emissions reductions.

Second, CARB has submitted an enforceable commitment to submit adopted contingency measures to EPA by 2020 as required by CAA section 182(e)(5). See CARB Resolution 11–22, July 21, 2011. These contingency measures must be adequate to produce emissions reductions sufficient, in conjunction with other approved plan provisions, to achieve the periodic emissions reductions required by CAA sections 182(b)(1) or (c)(2) and to attain by the applicable dates. See CAA 182(e)(5). Following the State's submittal of these contingency

measures, EPA will approve or disapprove the provisions in accordance with CAA section 110.

### C. Attainment Demonstration

#### 1. Requirements for Attainment Demonstrations

CAA section 182(c)(2)(A) requires states with ozone nonattainment areas classified as serious or above to submit plans that demonstrate attainment of the applicable standard as expeditiously as practicable but no later than the outside date established in the CAA.<sup>25</sup> The attainment demonstration is due within three years of the area's designation as nonattainment (40 CFR 51.908) and should include:

- (1) Technical analyses to locate and identify sources of emissions that are causing violations of the 8-hour ozone NAAQS within the nonattainment area;
- (2) Adopted measures with schedules for implementation and other means and techniques necessary and appropriate for attainment; and
- (3) Contingency measures required under section 172(c)(9) of the CAA.

See 70 FR 71612 at 71615.

The requirements for the first two items are described in the sections on emissions inventories and RACM/RACT above (sections IV.A. and IV.C.) and in the sections on the air quality modeling and attainment demonstration that follow immediately below. Requirements for the third item are described in the section on contingency measures (IV.F.).

#### 2. Air Quality Modeling in the SJV 2007 Ozone Plan

CAA section 182(c)(2)(A) requires SIPs for ozone nonattainment areas to include a “demonstration that the plan, as revised, will provide for attainment of the ozone [NAAQS] by the applicable attainment date. This attainment demonstration must be based on photochemical grid modeling or any other analytical method determined by the Administrator, in the Administrator's discretion, to be at least as effective.” Air quality modeling is used to establish emissions attainment targets, that is, the combination of emissions of ozone precursors that the area can accommodate without exceeding the relevant standard, and to assess whether the proposed control strategy will result in attainment of that standard. Air quality modeling is

<sup>25</sup> EPA's regulation at 40 CFR 51.903(a) translates the maximum attainment periods in Table 1 of section 181, which are specifically linked to enactment of the 1990 CAA Amendments, for purposes of attaining the 1997 8-hour ozone NAAQS.

performed for a base year and compared to air quality monitoring data from that year in order to evaluate model performance. Once the performance is determined to be acceptable, future year changes to the emissions inventory are simulated to determine the relationship between emissions reductions and changes in ambient air quality throughout the air basin. The procedures for modeling ozone as part of an attainment demonstration are contained in EPA's "Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for the 8-Hour Ozone and PM<sub>2.5</sub> NAAQS and Regional Haze"<sup>26</sup> (Guidance).

The air quality modeling that underpins the SJV 2007 Ozone Plan is described in Chapter 3 and documented in Appendix F. We provide a brief description of the modeling and a summary of our evaluation of it below. More detailed information about the modeling and our evaluation are available in section II.B. of the TSD.

CARB performed the air quality modeling for the 2007 Ozone Plan. Significant time, money, and effort by CARB, the District, and many others have gone into preparing the air quality modeling to support the attainment demonstration in the 2007 Ozone Plan for the San Joaquin Valley, including support for the multi-million dollar Central California Ozone Study (CCOS). CCOS is a cooperative effort involving California cities, State and local and air pollution control agencies, federal agencies, industry groups, academics, and contractors. Field data for CCOS were collected during the 4 months from June through October 2000 and included five several-day intensive monitoring periods. Data and modeling results based on the CCOS study provided a solid foundation for the 2007 Ozone Plan.

The Plan includes an attainment demonstration using photochemical modeling with the Comprehensive Air Quality Model with Extensions (CAMx) model, incorporating the [California] Statewide Air Pollution Research Center (SAPRC) chemical mechanism, and meteorological fields from the Mesoscale Model version 5 (MM5). In addition to the July 29–August 2, 2000 episode using CCOS data, CARB modeled ambient ozone levels during July 9–13, 1999 using routinely

available meteorological and air quality data.

EPA recommends that States prepare modeling protocols as part of their modeled attainment demonstrations. Guidance, p. 133. The Guidance at pp. 133–134 describes the topics to be addressed in this modeling protocol. A modeling protocol should detail and formalize the procedures for conducting all phases of the modeling analysis, such as describing the background and objectives, creating a schedule and organizational structure, developing the input data, conducting model performance evaluations, interpreting modeling results, describing procedures for using the model to demonstrate whether proposed strategies are sufficient to attain the NAAQS, and producing documentation to be submitted for EPA Regional Office review and approval prior to actual modeling.

The 2007 Ozone Plan's modeling protocol is contained in Appendix C of the CARB Staff Report<sup>27</sup> in the Plan. The protocol covers all of the topics recommended in the Guidance, including model and episode selection, meteorological and emission data preparation, and performance testing.

The 2007 Ozone Plan's air quality model performance is discussed in Appendix F, including extensive statistical and graphical analysis demonstrating adequate overall model performance. The attainment demonstration for a given monitoring location used only those days that satisfied a number of performance criteria. The sensitivity testing described by CARB provides assurance that the model is adequately simulating the physical and chemical processes leading to ozone in the atmosphere and that the model responds in a scientifically reasonable way to emissions changes.

The Plan's Appendix F also provides extensive documentation on the Relative Reduction Factors, which are the key results from the model for use in the attainment test, and the details of their calculation. The documentation also includes the results of modeling runs with various combinations of VOC and NO<sub>x</sub> reductions, to illustrate alternative control strategies and establish a "carrying capacity", a

combination of VOC and NO<sub>x</sub> emissions consistent with attainment of the ozone standard. EPA proposes to conclude that the attainment tests are adequate and consistent with EPA guidance.

In addition to a modeled attainment demonstration, which focuses on locations with an air quality monitor, EPA generally requires an unmonitored area analysis. The unmonitored area analysis uses a combination of model output and ambient data to identify areas that might exceed the NAAQS if monitors were located there. It ensures that a control strategy leads to reductions in ozone in unmonitored locations that might have baseline (and future) ambient ozone levels exceeding the NAAQS. In order to examine unmonitored areas in all portions of the modeling domain, EPA recommends use of interpolated spatial fields of ambient data combined with gridded modeled outputs. Guidance, p. 29. CARB's unmonitored area analysis<sup>28</sup> uses EPA's MATS software. Based on this analysis CARB concluded that there are no unmonitored ozone peaks in the modeling domain that would violate the 1997 8-hour ozone standards.

Finally, the Plan's Appendix F concludes with "Corroborative Analyses/Weight Of Evidence Elements", containing a supplemental analyses in support of the attainment demonstration. These analyses include ozone air quality trends, meteorologically adjusted ozone trends, and precursor emission trends, all of which show continued progress and support the conclusion that the attainment demonstration is sound.

Based on our review, EPA proposes to find that the air quality modeling provides an adequate basis for the RACM/RACT, RFP, and attainment demonstrations in the SJV 2007 8-Hour Ozone SIP.

### 3. Enforceable Commitments in the Attainment Demonstration

Section 11.2 of the 2007 Ozone Plan includes the initial attainment demonstration for the 1997 8-hour ozone standards in the SJV. The 2011 Ozone SIP Revisions update this demonstration to reflect changes to future year inventories and adopted controls.

The air quality modeling described above demonstrates that a 75 percent reduction in NO<sub>x</sub> emissions from the 2002 base year level is necessary to attain the 1997 8-hour ozone standard.

<sup>28</sup> "Unmonitored Area Analysis for Ozone in the San Joaquin Valley", California Air Resources Board, August 12, 2011. *SJV\_unmonitored\_ozone.pdf*.

<sup>26</sup> "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", EPA-454/B-07-002, April 2007. Additional EPA modeling guidance can be found in "Guideline on Air Quality Models" in 40 CFR part 51, Appendix W.

<sup>27</sup> "Photochemical Modeling Protocol for Developing Strategies to Attain the Federal 8-hour Ozone Air Quality Standard in Central California", California Air Resources Board, 5/22/2007, included as Appendix C to the "Final Draft, Staff Report: Analysis of the San Joaquin Valley 2007 Ozone Plan", State of California Air Resources Board, 5/30/2007. ("Staff Report" at <http://www.arb.ca.gov/planning/sip/2007sip/sjv8hr/sjvozone.htm>).

A 75 percent reduction from the 2002 base year level equates to an attainment target level of 160 tpd NO<sub>x</sub>. See 2007 State Strategy, p. 70. In the 2011 Ozone SIP Revisions, CARB revised the 2002 base year NO<sub>x</sub> emissions downward by 12 percent based on improved inventory methodologies and data. See Section IV.A. above.

Both CARB and EPA recognize that the ideal approach for evaluating the impact of the base year inventory changes on the attainment target would be to perform new air quality modeling. Both Agencies also recognize the time and effort involved in such modeling for an area that is as large and diverse as the San Joaquin Valley. To address the need for remodeling, CARB has committed to update the SJV 2007 Ozone Plan modeling to reflect the emissions inventory improvements and any other new information by December 31, 2014 or by the date the SIPs are due for the revised 8-hour ozone standard whichever comes first. See CARB Resolution 11–22, p. 3 and 2011 Ozone SIP Revisions, p. B–8.

As part of the technical support for the 2011 Ozone SIP Revisions, CARB qualitatively evaluated the impact on the attainment target of the revision to this base year inventory and concluded that the 160 tpd target remains viable. See 2011 Ozone SIP Revisions, p. B–9. The 160 tpd target represents a 72 percent reduction from the revised 2002 base year level. CARB also recognized, however, that a reduction of up to 75 percent from the revised baseline (an attainment target level of 141 tpd) may

be necessary to attain the 1997 8-hour ozone standard in the SJV and reaffirmed its 2007 State Strategy commitment to achieve all emissions reductions that are necessary to provide for attainment. See CARB Resolution 11–22, p. 3.

As EPA stated in its comment letter on the proposed 2011 Ozone SIP Revisions,<sup>29</sup> we believe that a 75 percent reduction from the base year NO<sub>x</sub> emissions level, based on the modeling provided in the Plan as submitted in 2007, provides the best available estimate of the NO<sub>x</sub> reductions needed to reach attainment. The predicted ozone concentrations from the existing modeling matched the monitored ozone concentration from the summer 2000 episode fairly well, despite having what we now know to be overly high emissions inputs. The model, therefore, may be underpredicting ozone concentrations and the original 160 tpd NO<sub>x</sub> target may result in higher ozone levels than the existing modeling predicted. Applying the 75 percent reduction from the existing modeling against the revised base year inventory compensates for this underprediction. This equates to a target level of 141 tpd compared to the original target level of 160 tpd.

In our comment letter, we recommended that CARB commit to revising the modeling by a specific date and to commit, in the interim, to achieving a 75 percent reduction in NO<sub>x</sub> from the revised 2002 base year levels by 2023. We noted that these recommendations are consistent with

CARB's continuing strong commitment and efforts to achieve the emission reductions needed for attainment of the air quality standards in the San Joaquin Valley and the rest of California.

In response, CARB included a commitment to update the 2007 SIP modeling for the SJV to reflect emissions inventory improvements and reaffirmed its commitment to achieve the emissions reduction necessary to provide for attainment. CARB has stated that these commitments are sufficient to address the concerns we raised in our comment letter. See 2011 Ozone SIP Revisions Supplement, p. 1.

EPA notes that NO<sub>x</sub> reductions needed to reach a target level of 141 tpd relative to the reductions needed to meet a target level of 160 tpd are part of CARB's long-term commitment discussed above in section IV.B.2.d. The current estimate of the NO<sub>x</sub> reductions needed from new technologies, based on adopted measures and CARB's remaining commitments for reductions from defined measures, is approximately 50 tpd. See Table 10 below. This level of reductions is well within CARB's existing commitment to achieve 81 tpd of NO<sub>x</sub> emissions reductions from new or improved technologies. See 2009 State Strategy Status Report, p. 21.

Table 9 below summarizes our evaluation of the attainment demonstration taking into account emission reductions achieved to date and other updates.

TABLE 9—SUMMARY OF REDUCTIONS NEEDED FOR SJV'S 8-HOUR OZONE ATTAINMENT DEMONSTRATION  
[Tons per summer day, 2023]

	NO <sub>x</sub>	VOC
A Revised 2002 baseline emissions level .....	565.2	457.5
B Attainment target level .....	141	342
C Total reductions needed from 2002 baseline levels to demonstrate attainment (A–B) .....	424.2	115.5
D Attainment year baseline emissions level .....	226.6	403.3
E Reductions from baseline measures and improvements to the emissions inventories (A–D) .....	338.6	54.2
F Reductions needed from control strategy measures including, for NO <sub>x</sub> , reductions from new technologies (B–D) .....	85.6	61.3

Source: TSD, Table D–11.

As shown in this table, the majority of the emissions reductions that the State projects are needed for attaining the 1997 8-hour ozone standard in the SJV by 2024 come from baseline reductions. These baseline reductions are from existing control measures including 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. See Appendices A and B of the TSD. Also included in the baseline are improvements to the emissions inventories, discussed above in section IV.A. The remaining reductions needed for attainment are to be achieved

through the District's and CARB's enforceable commitments to reduce emissions in the SJV or through their commitments to develop and deploy new technologies pursuant to CAA section 182(e)(5). Since the submittal of the 2007 Ozone Plan and 2007 State Strategy, the District and CARB have adopted measures that have

<sup>29</sup> Letter, Deborah Jordan, Director, Air Division, EPA Region 9, to James Goldstene, Executive Officer, CARB, July 20, 2011.

significantly reduced the amount of emission reductions needed for attainment that remain as commitments. See Table 10.

TABLE 10—REDUCTIONS NEEDED FOR ATTAINMENT REMAINING AS COMMITMENTS BASED ON SIP—CREDITABLE MEASURES  
[Tons per summer day in 2023]

	NO <sub>x</sub>	VOC
A Total reductions needed from baseline and control strategy measures to attain (A–B) .....	423.9	115.5
B Reductions from baseline measures and adjustments due to emissions inventory improvements .....	338.6	54.2
C Total reductions from approved measures (Tables 4 and 7) .....	32.4	53.6
D Total reductions remaining as commitments and, for NO <sub>x</sub> , reductions from new technologies (A–B–C) .....	53.2	7.7
E Reductions remaining as CARB enforceable commitments <sup>1</sup> .....	4.7	5.9
F Reductions remaining as SJVAPCD enforceable commitments .....	0	1.8
G Total reductions remaining as reductions from new technologies (CAA section 182(e)(5)) .....	48.6	
H Percent of total reductions needed remaining as commitments not including NO <sub>x</sub> reductions from new technologies .....	1.1%	6.7%

<sup>1</sup> Calculated by subtracting from CARB’s 2023 46 tpd NO<sub>x</sub> commitments (Table 8) the adjustment to baseline from State and federal sources from 2011 Ozone SIP Revisions Supplement, Attachment 1 (21.5 tpd) and emissions reductions from currently SIP-creditable State measures on Table 7 (19.8 tpd).

As shown in Table 9, reductions in the projected baseline inventory by measures already adopted by the District and State (both prior to and as part of the 2007 Ozone Plan and 2007 State Strategy) that EPA has approved or proposed for approval provide the great majority of the emissions reductions needed to demonstrate attainment of the 1997 8-hour ozone standard in the SJV. The balance is in the form of either enforceable commitments to specific aggregate emissions reductions by the District and CARB (lines E and F in Table 10 above) or reductions from new or improved technologies under CAA section 182(e)(5) (line G in Table 10). In this section we discuss the enforceable commitments that are part of the attainment demonstration in the SJV 2007 8-hour ozone SIP.

We believe that, with respect to the 2007 SJV 8-hour Ozone SIP, circumstances warrant the consideration of enforceable commitments as part of the attainment demonstration.<sup>30</sup> As shown in Table 9 above, the majority of NO<sub>x</sub> emissions reductions and a substantial fraction of the VOC reductions needed to demonstrate RFP and attainment in the SJV come from rules and regulations that were adopted prior to 2007, *i.e.*, from the baseline measures. As a result of these State and District efforts, most sources in the San Joaquin Valley nonattainment area are currently subject to stringent rules adopted prior to the State Strategy’s and the Plan’s development, leaving few

opportunities (and generally more technologically and economically challenging ones) to further reduce emissions. In the 2007 Ozone Plan and the 2007 State Strategy, the District and CARB identified potential control measures that could contribute many of the additional emissions reductions needed for attainment. See 2007 Ozone Plan, Appendix I and 2007 State Strategy, Chapter 5. However, the timeline needed to develop, adopt, and implement these measures went beyond the November 2007 submittal date of the SJV 8-hour Ozone SIP. These circumstances warrant the District’s and CARB’s reliance on enforceable commitments as part of the attainment demonstration in the 2007 Ozone Plan and 2007 State.

Given the State’s demonstrated need for reliance on enforceable commitments, we now consider the three factors EPA uses to determine whether the use of enforceable commitments in lieu of adopted measures to meet a CAA planning requirements is approvable: (a) Do the commitments address a limited portion of the statutorily-required program; (b) is the state capable of fulfilling its commitments; and (c) are the commitments for a reasonable and appropriate period of time.

a. The Commitments Are 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 to demonstrate RFP and attainment in a nonattainment area. For this calculation, reductions assigned to the new technologies provision (CAA

section 182(e)(5)) are not counted as commitments.<sup>31</sup>

As shown Table 9, the remaining portion of the enforceable commitments, after accounting for approved measures and advanced technology measures, needed to demonstrate attainment of the 8-hour ozone standard in the San Joaquin Valley are 7.7 tpd of VOC and, approximately 4.6 tpd of NO<sub>x</sub>. When compared to the total reductions needed to demonstrate attainment (not including the CAA section 182(e)(5) reductions in the attainment demonstration), the remaining portion of the enforceable commitments represents at most 6.7 percent of the needed VOC and 1.1 percent of the needed NO<sub>x</sub>. Historically, EPA has approved SIPs with enforceable commitments in the range of 10 percent or less. See 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), the Houston-Galveston 1-hour ozone plan at 66 FR 57160 (November 14, 2001), proposed approval of the SJV 2007 PM<sub>2.5</sub> SIP at 76 FR 41338 (July 13, 2011), and proposed approval of the South Coast PM<sub>2.5</sub> SIP at 76 FR 41562 (July 14, 2011). Thus, the State’s commitment addresses a limited proportion of the required emissions reductions.

<sup>31</sup> CAA section 182(e)(5) specifically allows EPA to approve an attainment demonstration that relies on reductions from new technologies. This provision is separate from the requirement in CAA section 172(c)(6) for enforceable emissions limitations under which enforceable commitments are considered. As a result, reductions attributed in the attainment demonstration to new technologies are not considered part of the State’s enforceable commitments for the purposes of determining the percent of the reductions needed for attainment that remain as commitments.

<sup>30</sup> Based on SIP-creditable measures adopted to date, the SJV 2007 8-hour ozone SIP does not rely on enforceable commitments to aggregate emissions reductions to demonstrate RFP or to meet any other applicable requirement of the CAA. Therefore, we discuss here only those enforceable commitments relied on to demonstrate attainment.

**b. The State Is Capable of Fulfilling Its Commitments**

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 the 2009 State Strategy Status Report and the 2011 Ozone SIP Revisions, which update and revise the 2007 State Strategy. These submittals show that CARB has made significant progress in meeting its enforceable commitments for the San Joaquin Valley. The District has already exceeded its commitments for reducing NO<sub>x</sub> emissions for the attainment year of 2023. See Tables 3 and 4 above and Table D-4 in the TSD. It also has adopted additional rules (Rules 9510 and 4320) that are projected to achieve NO<sub>x</sub> reductions in the attainment year. These reductions, however, are not currently creditable to the attainment and RFP demonstrations. In addition, the District has adopted revisions to District Rule 4702 (Reciprocating Internal Combustion Engines) that are likely to achieve substantial NO<sub>x</sub> reductions. See SJVAPCD, Final Draft Staff Report Proposed Amendments To Rule 4702 (Internal Combustion Engines), August 18, 2011. It has also adopted Rule 4566 (Organic Materials Composting Operations) that will achieve an estimated 19 tpd reductions in VOC (in SIP currency) by 2017. Finally, the District is continuing to work to identify and adopt additional measures to 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. See, for example, SJVAPCD, 2008 PM<sub>2.5</sub> Progress Report (May 2011), section 2.3.

Given the State's and District's efforts to date to reduce emissions, we believe that the State and District are capable of meeting their enforceable commitments to adopt measures to reduce emissions of NO<sub>x</sub> and VOC to the levels needed in combination with reductions from the new technologies provision to attain the 1997 8-hour ozone standard in the San Joaquin Valley by CAA deadline of June 15, 2024.

**c. The Commitments Are for a Reasonable and Appropriate Timeframe**

For the third and last 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 8-hour ozone standard in the San Joaquin Valley, the 2007 Ozone Plan and 2007 State Strategy included ambitious rule development, adoption, and implementation schedules, which both the District and CARB have substantially met. Given that almost all the emissions reductions committed to by District and CARB have already been achieved and the rules that are likely to achieve the few remaining ones are scheduled for adoption by 2013, these schedules provide sufficient time to achieve the few remaining reductions needed to attain (when considered with the emissions reductions provided by the advanced technology provision) by the applicable attainment date of June 15, 2024. See Tables 2 and 5 above. Thus, we find that the commitments are for a reasonable and appropriate timeframe.

**4. Proposed Action on the Attainment Demonstration**

In order to approve a SIP's attainment demonstration, EPA must make several findings:

First, we must find that the demonstration's technical bases—emissions inventories and air quality modeling—are adequate. As discussed above in sections IV.A. and IV.C.2., we are proposing to approve the revised base year emissions inventory and to find the air quality modeling adequate to support the attainment demonstration.

Second, we must find that the SIP provides for expeditious attainment through the implementation of all RACM. As discussed above in section II.C., we are proposing to approve the RACM demonstration in the SJV 2007 8-hour Ozone SIP as meeting the requirements of CAA section 172(c)(1).

Third, we must find that the emissions reductions that are relied on for attainment are creditable and are sufficient to provide for attainment. As shown on Table 9, the 2007 8-hour Ozone SIP relies primarily on adopted and approved/waived rules to achieve the emissions reductions needed to attain the 1997 8-hour ozone standards in the SJV by June 15, 2024. The balance of the reductions projected to be needed for attainment is currently in the form of enforceable commitments to adopt measures to achieve aggregate tonnage reductions of VOC or NO<sub>x</sub> in the near term from available technologies and an enforceable commitment to adopt and submit in the longer term measures relying on the development and deployment of new technologies that

will achieve specific aggregate tonnage reductions of NO<sub>x</sub>.

EPA has previously accepted enforceable commitments in lieu of adopted control measures in attainment demonstrations when circumstances warrant them and the commitments meet three criteria. As discussed above in section IV.C.3., we propose to find that circumstances here warrant the consideration of enforceable commitments and that the three criteria are met: (1) The commitments constitute a limited portion of the required emissions reductions, (2) both the State and the District have demonstrated their capability to meet their commitments, and (3) the commitments are for an appropriate timeframe. Based on these evaluations, we are proposing to approve the enforceable commitments as part of the attainment demonstration in the 2007 8-Hour Ozone SIP.

CAA section 182(e)(5) allows extreme ozone nonattainment area plans under certain conditions to include provisions for the development of new technologies and allows EPA to approve attainment demonstrations based, in part, on those provisions. For the reasons discussed above in section IV.B., we propose to find that California has met the conditions for relying on the CAA's new technologies provisions in its attainment demonstration for the SJV.

As discussed above in section IV.C.2. above, the SJV Ozone Plan and State Strategy, as adopted in 2007, demonstrates that a 75 percent reduction in NO<sub>x</sub> emissions from the 2002 base year level is necessary to attain the 1997 8-hour ozone standard. Since the adoption of the SJV ozone SIP in 2007, the base year NO<sub>x</sub> emissions level has to be revised downward by 12 percent due to new inventory methodologies and data. Both CARB and EPA recognize that the ideal approach for evaluating the impact of these base year inventory changes on the attainment target in the SJV 2007 Ozone Plan would be to perform new air quality modeling, but both also recognize the time and effort involved in such modeling. CARB has committed to update the SJV 2007 Ozone Plan modeling to reflect the emissions inventory improvements and any other new information by December 31, 2014 or by the date the SIPs are due for the revised 8-hour ozone standard whichever comes first. See CARB Resolution 11-22, p. 3 and 2011 Ozone SIP Revisions, p. B-8. EPA is proposing to approve this commitment.

EPA believes that a 75 percent reduction from the base year NO<sub>x</sub> emissions level from the existing

modeling provides the best currently available estimate of the NO<sub>x</sub> reductions needed to reach attainment. CARB has committed to, and has reaffirmed its commitment to achieve the reductions needed for attainment in the SJV. See CARB Resolution 07–28 (September 27, 2007), Appendix B, p. 3, 2009 State Strategy Status Report, p. 13, and CARB Resolution 11–22, p. 3. It has also stated that these commitments are sufficient to address the attainment needs of the SJV. See 2011 Ozone SIP Revisions Supplement, p. 1. As discussed above, CARB’s commitment to achieving 81 tpd of NO<sub>x</sub> emissions reductions from new technologies is sufficient to cover any reductions that may be needed for attainment due to the changes to the base year inventory.

For the foregoing reasons, we propose to approve the attainment demonstration in the SJV 2007 8-Hour Ozone SIP.

*D. Reasonable Further Progress Demonstration*

1. Requirements for RFP Demonstrations

CAA section 172(c)(2) requires that plans for nonattainment areas 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 [title 1, part D] or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable [standard] by the applicable date.” CAA Section 182(b)(1) specifically requires that SIPs for ozone nonattainment areas that are classified as moderate or above demonstrate a 15 percent reduction in VOC emissions between the years of 1990 and 1996. For ozone nonattainment areas classified as serious or higher, CAA Section

182(c)(2)(B) also requires, in addition to the 15 percent reduction required under CAA 182(b)(1), a three percent per year reduction (averaged over three-year periods) of ozone precursor emissions until attainment.

The ozone implementation rule interprets the RFP requirements for the purposes of the 1997 ozone standards, establishing requirements for RFP that depend on the area’s classification as well as whether the area has an approved 15 percent rate of progress plan for VOC under CAA section 182(b)(1) for the 1-hour ozone standard that covers the entire 8-hour ozone nonattainment area. See 40 CFR 51.910(d) and 70 FR 71612. In 1997 EPA approved a 15 percent rate of progress plan for the SJV which covers the current 1997 8-hour ozone standard nonattainment area. See 62 FR 1150, 1172 (January 8, 1997). As a result, the area does not need to demonstrate another 15 percent reduction in VOC. Instead, under the ozone implementation rule, the 8-hour ozone SIP for SJV must provide for an average of three percent per year of VOC and/or NO<sub>x</sub> emissions reductions for (1) the six-year period beginning January 1 of the year following the year used for the baseline and (2) all remaining three-year periods after the first six-year period out to the area’s attainment date. 40 CFR 51.910(a)(1)(ii)(B). Except as specifically provided in CAA section 182(b)(1)(C), emissions reductions from all SIP approved, federally promulgated, or otherwise SIP creditable measures that occur after the baseline are creditable for purposes of demonstrating RFP targets are met. The implementation rule also sets the baseline for RFP calculations as 2002.

The RFP demonstration must calculate and exclude the non-creditable reductions described in CAA

182(b)(1)(D). These non-creditable reductions include emissions reductions from pre-1990 federal motor vehicle programs. The method for calculating the target emissions levels is found in Appendix A to the preamble of the ozone implementation rule. See 70 FR 71612 at 71696.

2. RFP Demonstration in the SJV 2007 8-Hour Ozone SIP

California has made several submittals to address the RFP requirement for the 1997 8-hour ozone standard in the SJV. The last of these is found in Appendix A of the 2011 Ozone SIP Revisions. This revised demonstration incorporates the inventory revisions described in section IV.A. above as well as reductions from measures that have been adopted since the 2007 Ozone Plan’s submittal except for those that EPA has determined by rule are not currently creditable. See 2011 Ozone SIP Revisions, p. 2.

3. Proposed Action on the RFP Demonstration

CARB calculated the RFP target levels following the method provided in the ozone implementation rule and preamble. See 40 CFR 51.910 and 70 FR 71612 at 71631–71650. EPA has made minor adjustments to the State’s calculations to remove reductions from currently unapproved measures (e.g., pesticides). A summary of our evaluation of the State’s RFP demonstration, taking into account these minor adjustments, is shown in Table 11 below. The detailed analysis can be found in section II.G. of the TSD. As shown in the Table 11, the SJV 2007 8-Hour Ozone SIP provides for RFP in each milestone years. We propose, therefore, to approve the SIP’s RFP demonstration.

TABLE 11—SAN JOAQUIN RATE OF PROGRESS DEMONSTRATIONS  
[Summer planning tons per day]

	2008	2011	2014	2017	2020	2023
VOC Calculation						
Target level of VOC needed to meet ROP requirement.	365.0	327.2	293.6	264.4	239.7	218.1
Baseline VOC in milestone year (with uncreditable reductions removed).	408.8	355.9	333.5	331.0	333.0	341.5
Apparent shortfall	43.8	28.7	39.9	66.6	93.3	123.4
Percent apparent shortfall in VOC	9.8%	6.5%	9.2%	15.4%	21.6%	28.6%
Shortfall previous provided by NO <sub>x</sub> substitution	0.0%	9.8%	9.6%	9.2%	15.4%	21.6%
Percent actual shortfall in VOC	9.8%	–3.3%	–0.4%	6.2%	6.2%	7.0%
NO <sub>x</sub> Calculations						
Adjusted NO <sub>x</sub> baseline (MVCP and uncreditable reductions removed).	425.5	359.6	309.0	260.3	226.5	196.5
Change in NO <sub>x</sub> since 2002 adopted controls only	122.9	184.4	213.4	278.0	310.8	537.0
Percent change in NO <sub>x</sub> since 2002	22.4%	33.9%	42.8%	51.5%	57.8%	63.4%

TABLE 11—SAN JOAQUIN RATE OF PROGRESS DEMONSTRATIONS—Continued  
[Summer planning tons per day]

	2008	2011	2014	2017	2020	2023
Percent change in NO <sub>x</sub> used for VOC substitution through previous milestone.	0% .....	9.6% .....	9.6% .....	9.6% .....	15.8% .....	22.0%
Percent reductions since 2002 available for RFP substitution and contingency in the milestone year.	22.4% .....	24.1% .....	33.0% .....	41.8% .....	41.8% .....	41.1%
Percent change since 2002 used for VOC substitution in the milestone year, percent.	9.8% .....	0.0% .....	0.0% .....	6.2% .....	6.2% .....	7.0%
Percent change since 2002 surplus after meeting substitution in the milestone year.	12.6% .....	24.1% .....	33.0% .....	35.6% .....	35.5% .....	34.1%
RFP met? .....	Yes .....	Yes .....	Yes .....	Yes .....	Yes .....	Yes.

*E. Transportation Control Strategies and Transportation Control Measures To Offset Emissions Increases From VMT Increases, To Provide for RFP and Attainment*

1. Requirements for Transportation Control Strategies and Transportation Control Measures To Offset Emissions Growth, To Provide for RFP and Attainment

CAA section 182(d)(1)(A) requires that areas classified as severe or extreme submit transportation control strategies and transportation control measures (TCM) sufficient to offset any growth in VOC emissions from growth in VMT or the number of vehicle trips, and to provide (along with other measures) the reductions needed to meet the applicable RFP requirement. CAA section 182(d)(1)(A) also requires that states choose and implement such measures as are specified in section 108(f), to the extent needed to demonstrate attainment. In selecting the measures, Congress directed that States “should ensure adequate access to downtown, other commercial, and

residential areas and should avoid measures that increase or relocate emissions and congestion rather than reduce them.” CAA 182(d)(1)(A).

EPA believes that it is appropriate to treat the three required elements of section 182(d)(1)(A) (i.e., offsetting emissions growth, attainment of the RFP reduction, and attainment of the ozone standard) as separable. As to the first element of CAA section 182(d)(1)(A) (i.e., offsetting emissions growth), EPA has historically interpreted this CAA provision to allow areas to meet the requirement by demonstrating that emissions from motor vehicles decline each year through the attainment year. General Preamble at 13521–13522.<sup>32</sup>

2. Transportation Control Strategies and Transportation Control Measures To Offset Emissions Growth, To Provide for RFP and Attainment in the SJV 2007 8-Hour Ozone SIP

Information in 2011 Ozone SIP Revisions reproduced in Table 12 below shows that on-road mobile source emissions of VOC and NO<sub>x</sub> decline steadily from 2008 to 2023. This decline in emissions is due to EPA’s and

California’s on-road mobile source programs, California’s clean fuels and SmogCheck programs, and CARB’s in-use truck and bus rule. As discussed above in section IV.B., these programs are fully creditable for SIP planning purposes in attainment and RFP demonstrations, including demonstrating compliance with CAA section 182(d)(1). The on-road emissions in Table 12 are calculated using EMFAC2007 (the most recent EPA-approved mobile source emissions model) and the same planning assumptions used to develop the RFP and attainment demonstrations and transportation conformity motor vehicle emissions budget in the 2011 Ozone SIP Revisions. 2011 Ozone SIP Revisions, p. C–1. As described above in section IV.B., the SJV MPOs evaluated a wide variety of transportation control strategies and measures, including those measures listed in CAA section 108(f), and determined that there were no combinations of reasonable measures that would expedite attainment of the 8-hour ozone standard in the SJV. See 2007 Ozone Plan, Appendix C.

TABLE 12—ON-ROAD MOTOR VEHICLE EMISSIONS IN THE SAN JOAQUIN VALLEY 2008–2023  
[Tons per summer day]

Year	2008	2011	2014	2017	2020	2023
VOC .....	78	66	50	43	39	37
NO <sub>x</sub> .....	229	183	153	115	91	69

Source: 2011 8-Hour Ozone SIP Revision, Appendix B, page B–3.

<sup>32</sup> See also 60 FR 48896 (September 21, 1995) approval of Illinois’ vehicle miles traveled plan for the Chicago area; 62 FR 23410 (April 30, 1997) and 62 FR 35100 (June 30, 1997), proposed and final approval of New Jersey’s 15 percent ROP plan and other provisions for the New York-New Jersey-

Connecticut ozone nonattainment area; 66 FR 23849 (May 10, 2001), approval of the New York’s attainment demonstration and related provisions for the New York-New Jersey-Connecticut ozone nonattainment area; 66 FR 57247 (November 14, 2001), approval of the VMT offset plan for the

Houston-Galveston ozone nonattainment area; 70 FR 25688 (May 13, 2005), approval of the Washington, DC area’s 1-hour attainment demonstration and related provisions; and 70 FR 34358 (June 14, 2005), approval of Atlanta’s VMT plan.

### 3. Proposed Action Transportation Control Strategies and Transportation Control Measures To Offset Emissions Growth, To Provide for RFP and Attainment in the SJV 2007 8-Hour Ozone SIP

Because both VOC and NO<sub>x</sub> emissions from on-road mobile sources decline steadily over the entire time period covered by the 2007 8-hour Ozone SIP,<sup>33</sup> the SIP need not include additional transportation control strategies and TCM to offset growth in emissions from growth in VMT. Therefore, we propose to find that the SJV 2007 8-Hour Ozone SIP meets the requirement in CAA section 182(d)(1)(A) to include transportation control strategies and TCM sufficient to offset any growth in emissions from growth in VMT or the number of vehicle trips.

In *Association of Irrigated Residents v. EPA*, 632 F.3d 584 (9th Cir. 2011), the U.S. Court of Appeals for the Ninth Circuit held that, with respect to the first element, section 182(d)(1)(A) of the CAA requires States to adopt transportation control measures and strategies whenever vehicle emissions are projected to be higher than they would have been had vehicle miles traveled not increased, even when aggregate vehicle emissions are actually decreasing. EPA has filed a petition for rehearing on this issue. Docket Nos. 09–71383 and 09–71404 (consolidated), Docket Entry 41–1, *Petition for Panel Rehearing*.

The Ninth Circuit has yet to issue its mandate in the *Association of Irrigated Residents* case, and EPA has not adopted the court's interpretation for the reasons set forth in the Agency's petition for rehearing, pending a final decision by the court. If the court denies the Agency's petition for rehearing and issues its mandate before EPA issues a final rule on the SJV 2007 8-Hour Ozone SIP, then we anticipate that we would not be able to finalize approval of the SJV 2007 8-Hour Ozone SIP with respect to the first element (*i.e.*, offsetting emissions growth) of section 182(d)(1)(A). Therefore, in today's action, and in the alternative to the proposed approval, we are simultaneously proposing to disapprove the SJV 2007 8-Hour Ozone SIP with respect to the first element (*i.e.*,

offsetting emissions growth) of section 182(d)(1)(A) based on the plan's failure to include sufficient transportation control strategies and TCM to offset the emissions from growth in VMT. If EPA were to finalize the proposed disapproval, the area would be eligible for a protective finding under the transportation conformity rule because the submitted SIP contains adopted control measures and enforceable commitments that fully satisfy the emissions reductions requirements for reasonable further progress and attainment. 40 CFR 93.120(a)(3).<sup>34</sup>

As discussed above in section IV.D., we are proposing to find that the SJV 2007 8-Hour Ozone SIP provides for RFP consistent with all applicable CAA and EPA regulatory requirements. Therefore, we also propose to find that the SIP meets the requirement in CAA section 182(d)(1)(A) to include transportation control strategies and TCM as necessary to provide (along with other measures) the reductions needed to meet the applicable RFP requirement.

Finally, as discussed in sections IV.B. and IV.C. above, we are proposing to find that the SJV 2007 8-Hour Ozone SIP provides expeditious attainment of the 1997 8-hour ozone standard. Therefore, we propose to find that the SIP meets the requirement in CAA section 182(d)(1)(A) to include measures to the extent needed to demonstrate attainment.

#### F. Contingency Measures

##### 1. Requirements for Contingency Measures

Under the CAA, 8-hour ozone nonattainment areas classified under subpart 2 as moderate or above must include in their SIPs contingency measures consistent with sections 172(c)(9) and 182(c)(9). Contingency measures are additional controls to be implemented in the event the area fails to meet a RFP milestone or fails to attain by its attainment date. These contingency measures must be fully adopted rules or measures which are ready for implementation quickly upon failure to meet milestones or attainment. The SIP should contain trigger mechanisms for the contingency

measures, specify a schedule for implementation, and indicate that the measures will be implemented without significant further action by the State or EPA. See 68 FR 32802, 32837 and 70 FR 71612, 71650.

Additional guidance on the CAA contingency measure provisions is found in the General Preamble at 13510–13512 and 13520. The guidance indicates that states should adopt and submit contingency measures sufficient to provide a 3 percent emissions reduction from the adjusted RFP base year. EPA concludes this level of reductions is generally acceptable to offset emission increases while States are correcting their SIPs. These reductions should be beyond what is needed to meet the attainment and/or RFP requirement. States may use reductions of either VOC or NO<sub>x</sub> or a combination of both to meet the contingency measure requirements. General Preamble at 13520, footnote 6. EPA guidance also provides that contingency measures could be implemented early, *i.e.*, prior to the milestone or attainment date.<sup>35</sup> Consistent with this policy, states are allowed to use excess reductions from already adopted measures to meet the CAA sections 172(c)(9) and 182(c)(9) contingency measures requirement. This is because the purpose of contingency measures is to provide extra reductions that are not relied on for RFP or attainment that will provide continued progress while the plan is being revised to fully address the failure to meet the required milestone. Nothing in the CAA precludes a State from implementing such measures before they are triggered. This approach has been approved by EPA in numerous SIPs. See 62 FR 15844 (April 3, 1997) (approval of the Indiana portion of the Chicago area 15 percent ROP plan); 62 FR 66279 (December 18, 1997) (approval of the Illinois portion of the Chicago area 15 percent ROP plan); 66 FR 30811 (June 8, 2001) (proposed approval of the Rhode Island post-1996 ROP plan); and 66 FR 586 and 66 FR 634 (January 3, 2001) (approval of the Massachusetts and Connecticut 1-hour ozone attainment demonstrations). In the only adjudicated challenge to this approach, the court upheld it. See *LEAN v. EPA*, 382 F.3d 575 (5th Cir. 2004). 70 FR 71611, 71651.

In addition, CAA section 182(e)(5) authorizes EPA to “approve provisions of an implementation plan for an Extreme Area which anticipate

<sup>35</sup> *Memorandum*, G.T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch to Air Directors, “Contingency Measures for Ozone and Carbon Monoxide (CO) Redesignations,” June 1, 1992.

<sup>33</sup> CARB only presented mobile source emissions estimates for the RFP milestone years rather than for each year between 2011 and 2023. We believe this adequately meets the CAA section 182(d)(3) requirement. There is nothing in the record to indicate that mobile sources emissions in the SJV are likely to increase between milestone years before returning to their historic downward trend in the milestone years.

<sup>34</sup> An area would not be eligible for a protective finding under the transportation conformity regulation if EPA finalizes a disapproval of a control strategy implementation plan revision (*i.e.*, a plan that demonstrates reasonable further progress or attainment) because the plan revision does not contain adopted control measures or written commitments to enforceable control measures that fully satisfy the emissions reductions requirements relevant to the statutory provision for which the implementation plan revision was submitted. 40 CFR 93.120(a)(3).

development of new control techniques or improvement of existing control techniques, and an attainment demonstration based on such provisions," if the State meets certain criteria. See CAA 182(e)(5). Such plan provisions may include enforceable commitments to submit, at a later date, contingency measures for failure to attain under CAA section 172(c)(9), in addition to the contingency measures to be implemented if the anticipated technologies approved under section 182(e)(5) do not achieve planned reductions. These contingency measures must be submitted no later than three years before proposed implementation of the plan provisions and approved or disapproved by EPA in accordance with CAA section 110. *Id.*

## 2. Contingency Measures in the SJV 2007 8-Hour Ozone SIP

Contingency measure provisions are described in Section 11.6. of the 2007 Ozone Plan and Appendix D of the 2007 State Strategy as updated on February 1, 2008. The provisions were again updated in the 2011 Ozone SIP Revisions, Appendix A. To provide for contingency measures for failure to make RFP, the SIP relies on surplus NO<sub>x</sub> reductions in the RFP demonstration. See 2011 Ozone SIP Revision, Attachment A, p. A-3. See also Table 11 above. To provide for contingency measures for failure to attain, the SIP relies in part on the additional incremental emissions reductions resulting from fleet turnover in the 2024. Fleet turnover in 2024 is expected to reduce NO<sub>x</sub> emissions by 2 tpd and VOC emissions by less than 0.5 tpd. See 2011 Ozone SIP Revisions Supplement, Attachment 2.

Additionally, as discussed above in section IV.B.2.d., we are proposing to determine that CARB and the SJVUAPCD have satisfied the criteria in section 182(e)(5) for reliance on the new technology provision as part of the attainment demonstration in the 2007 8-Hour Ozone SIP. Based on the State's anticipated development of these new technologies, CARB has submitted an enforceable commitment to submit, no later than 2020, additional contingency measures under CAA section 182(e)(5) that meet the requirements for attainment contingency measures in CAA section 172(c)(9), in addition to contingency measures to be implemented if the anticipated long-term measures approved pursuant to section 182(e)(5) do not achieve planned reductions. See CARB Resolution No. 11-22 (July 21, 2011).

## 3. Proposed Action on the Contingency Measures

As discussed above in section IV.D., we are proposing to approve the 2007 8-Hour Ozone SIP's RFP demonstration. As seen in the second to last line on Table 11 above (the RFP demonstration), there are sufficient excess reductions of NO<sub>x</sub> in each milestone year beyond those needed to meet the next RFP percent reduction requirement to provide the 3 percent of adjusted baseline emissions reductions needed to meet the RFP contingency measure requirement for 2011, 2014, 2017, and 2020.

No RFP contingency measures are needed for 2008, since the 2011 Ozone SIP Revisions demonstrate that SJV has already met its 2008 milestone. See Table 11 above. As a result, contingency measures for failure to meet the 2008 RFP benchmark will never be triggered and thus are not needed.

*Contingency measures for failure to attain*—The incremental additional emissions reductions that will occur in 2024 (the year after the attainment year) from the continuing implementation of both on- and off-road motor vehicle controls may be used to meet the contingency measure requirement for failure to attain. For the SJV, these reductions are 2 tpd of NO<sub>x</sub> and less than 0.5 tpd of VOC.

In addition, based on our proposal to determine that the State has satisfied the criteria in section 182(e)(5) for reliance on long-term measures as part of the attainment demonstration in the 2007 8-Hour Ozone SIP, we propose to approve CARB's enforceable commitment to submit, no later than 2020, additional contingency measures under CAA section 182(e)(5) that meet the requirements for attainment contingency measures in CAA section 172(c)(9), in addition to contingency measures to be implemented if the anticipated long-term measures approved pursuant to section 182(e)(5) do not achieve planned reductions.<sup>36</sup> CARB Resolution No. 11-22 (July 21, 2011).

Accordingly, we propose to approve the RFP and attainment contingency measures in the SJV 2007 Ozone SIP under CAA sections 172(c)(9) and 182(c)(9), based in part on CARB's commitment to submit by 2020 additional contingency measures meeting the requirements of CAA

<sup>36</sup> These contingency measures should, at a minimum, ensure that an appropriate level of emissions reduction progress continues to be made if attainment is not achieved and additional planning by the State is needed. See General Preamble at 13524.

sections 172(c)(9) and 182(e)(5). Following the State's submittal of these additional contingency measures, EPA will approve or disapprove the provisions in accordance with CAA section 110.

## G. Advanced Control Technology and Clean Fuels for Boilers

### 1. Requirements for Advanced Technology and Clean Fuels for Boilers

CAA section 182(e)(3) provides that SIPs for extreme areas must require each new, modified, and existing electric utility and industrial and commercial boiler that emits more than 25 tpy of NO<sub>x</sub> to either burn as its primary fuel natural gas, methanol, or ethanol (or a comparably low polluting fuel), or use advanced control technology (such as catalytic control technology or other comparably effective control methods). These provisions are due three years after designation and the control requirements must be in place eight years after designation. Further guidance on this requirement is provided in the General Preamble at 13523. According to the General Preamble, a boiler should generally be considered as any combustion equipment used to produce steam and generally does not include a process heater that transfers heat from combustion gases to process streams. General Preamble at 13523. In addition, boilers with rated heat inputs less than 15 million Btu (MMBtu) per hour which are oil or gas fired may generally be considered de minimis and exempt from these requirements since it is unlikely that they will exceed the 25 tpy NO<sub>x</sub> emission limit. General Preamble at 13524.

### 2. Provisions for Controls on Boilers in the SJV District Rules

The 2007 Ozone Plan, which addresses the CAA section 182(e)(3) requirements on page 2-9, states that District Rules 4305, 4306, and 4352 address NO<sub>x</sub> from affected boilers and that these rules meet the requirements of the CAA. Since submittal of the 2007 Ozone Plan, Rule 4305 has been superseded by Rule 4306.

*Rule 4306 "Boilers, Steam Generators, and Process Heaters—Phase 3"* as revised on September 18, 2003, applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour. The emission limits in the rule (5 ppm to 30 ppm for gaseous fuels and 40 ppm for liquid fuels) cannot be achieved without the use of advanced control technologies. See "Alternative Control

Techniques Document—NO<sub>x</sub> Emissions from Industrial/Commercial/Institutional (ICI) Boilers,” Emissions Standards Division, EPA, March 1994; see also 74 FR 33933 at 33945 (July 14, 2009) and 75 FR 10420 at 10434 (March 8, 2010) (proposed and final rules approving 1-hour ozone plan for SJV). All units subject to Rule 4306 were required to comply with the limits in the rule no later than December 1, 2008. See Rule 4306, section 7.0. We approved Rule 4306 as a SIP revision on May 18, 2004 at 69 FR 28061.

*Rule 4352 “Solid Fuel-Fired Boilers, Steam Generators And Process Heaters”* as revised May 18, 2006, applies to any boiler, steam generator or process heater fired on solid fuel at a source that has a potential to emit more than 10 tons per year of NO<sub>x</sub> or VOC. All units subject to Rule 4352 were required to comply with the Rule’s limits no later than January 1, 2007. Rule 4352, section 7.0. We approved Rule 4352 into the California SIP on October 1, 2010. In that action, we determined that all of the NO<sub>x</sub> emission limits in Rule 4352 effectively require operation of Selective Noncatalytic Reduction (SNCR) control systems, which are comparably effective to SCR for the affected sources. SNCR also appears to achieve NO<sub>x</sub> emission reductions comparable to combustion of clean fuels at these types of boilers. We therefore concluded that Rule 4352 satisfies the requirements of section 182(e)(3) for solid fuel-fired boilers in the SJV. See TSD, section II.I.; see also 74 FR 33933 at 33945 and 75 FR 10420 at 10434.

New and modified boilers that will emit or have the potential to emit 25 tpy or more of NO<sub>x</sub> are subject to the District’s new source permitting rule, Rule 2201 “New and Modified Stationary Source Review.” This rule requires new and modified source to install and operate best available control technology/lowest achievable emissions reductions technology. EPA approved Rule 2201 into the SIP at 75 FR 26102 (May 11, 2010).

### 3. Proposed Finding on the Advanced Technology and Clean Fuels for Boilers

Based on our review of the emission limitations in SJVAPCD’s rules, we propose to find that the SJV area meets the clean fuel/clean technology for boilers requirement in CAA section 182(e)(3).

### H. Motor Vehicle Emissions Budgets for Transportation Conformity

#### 1. Requirements for Motor Vehicle Emissions Budgets

CAA section 176(c) requires Federal actions in nonattainment and maintenance areas to conform to the SIP’s goals of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of the standards. Conformity to the SIP’s goals means that such actions will not: (1) Cause or contribute to violations of a NAAQS, (2) worsen the severity of an existing violation, or (3) delay timely attainment of any NAAQS or any interim milestone.

Actions that involve 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. Under this rule, metropolitan planning organizations (MPOs) in nonattainment and maintenance areas coordinate with state and local air quality and transportation agencies, EPA, FHWA, and FTA to demonstrate that an area’s regional transportation plans (RTP) and transportation improvement programs (TIP) conform to the applicable SIP. This demonstration is typically done by showing that estimated emissions from existing and planned highway and transit systems are less than or equal to the motor vehicle emissions budgets (budgets) contained in the SIP. An attainment, maintenance, or RFP SIP should establish budgets for the attainment year, each required RFP year or last year of the maintenance plan, as appropriate. Budgets are generally established for specific years and specific pollutants or precursors. Ozone attainment and RFP plans should establish budgets for NO<sub>x</sub> and VOC. See 40 CFR 93.102(b)(2)(i).

Before an MPO may use budgets in a submitted SIP, EPA must first determine that the budgets are adequate or approve the budgets. In order for us to find the budgets adequate and approvable, the submittal must meet the conformity adequacy requirements of 40 CFR 93.118(e)(4) and be approvable under all pertinent SIP requirements. To meet these requirements, the budgets must reflect all of the motor vehicle control measures contained in the attainment and RFP demonstrations. See 40 CFR 93.118(e)(4)(v).

#### 2. Motor Vehicle Emissions Budgets in the SJV 2007 8-Hour Ozone SIP

The SJV Ozone SIP as submitted in 2007 included budgets for VOC and NO<sub>x</sub> for the attainment year of 2023 and

the RFP years of 2008, 2011, 2014, 2017, and 2020. See 2007 Ozone Plan, Section 9.2.3 and Appendix C and CARB Staff Report, Appendix D (updating MVEB for Madera and San Joaquin Counties). On January 8, 2009, we notified CARB that we found the budgets in the 2007 Ozone Plan for the RFP milestone years 2011, 2014, and 2017 adequate and the MVEB for the RFP milestone years 2008 and 2020 and the attainment year of 2023 inadequate for transportation conformity purposes. See letter Deborah Jordan, EPA Region 9, to James Goldstene, CARB, “RE: Adequacy Status of San Joaquin Valley 8-Hour Ozone Reasonable Further Progress and Attainment Plan Motor Vehicle Emissions Budgets,” January 8, 2009. We published a notice of our findings at 74 FR 4032 (January 22, 2009).

CARB submitted updated MVEB for the San Joaquin Valley and their documentation in Appendices A and C, respectively, of the 2011 Ozone SIP Revisions. The updated MVEB are for NO<sub>x</sub> and VOC for the RFP years of 2011, 2014, 2017 and 2020 the attainment year of 2023 and are intended to replace the budgets for these years that were submitted in 2007. No budgets were included for the RFP year of 2008 because it is no longer applicable as a conformity analysis year. Additional information associated with the motor vehicle emission budget calculations were provided in an e-mail from Douglas Ito, CARB to Elizabeth Adams, EPA Region 9, “Additional Clarifying Information,” August 11, 2011.

#### 3. Proposed Action on the Motor Vehicle Emissions Budgets

As part of its review of the budgets’ approvability, EPA has evaluated the revised budgets using our adequacy criteria in 40 CFR 93.318(e)(4). As documented in Table K–3 in the TSD, we found that they meet each adequacy criterion. We have completed our detailed review of the 2007 SJV 8-Hour Ozone SIP and supplemental submittals including the 2011 Ozone SIP Revisions and are proposing to approve the SIP’s attainment and RFP demonstrations. We have also reviewed the proposed MVEB submitted with the 2011 Ozone SIP Revision and have found that they are consistent with the attainment and RFP demonstrations and were based on control measures that have already been adopted and implemented. Therefore, we are proposing to approve the 2011, 2014, 2017, 2020, and 2023 MVEB as shown in Table 13.

EPA is not required under its Transportation Conformity rules to find budgets adequate prior to proposing approval of them. However, we will

complete the adequacy review of these budgets either prior to or concurrently with our final action on SJV 2007 8-Hour Ozone SIP. We will also post the revised budgets on EPA's adequacy review web page.

As stated in section IV.E., if we were to finalize a disapproval with respect to the plan's section 182(d)(1)(A) element, then the area would be eligible for a protective finding under the transportation conformity rule because

the submitted SIP contains adopted control measures and enforceable commitments that fully satisfy the emissions reductions requirements for reasonable further progress and attainment. 40 CFR 93.120(a)(3).

TABLE 13—MOTOR VEHICLE EMISSIONS BUDGET IN THE SJV 2007 OZONE SIP AS REVISED ON JULY 21, 2011  
[Tons per summer day]

Year	2011		2014		2017		2020		2023	
	ROG	NO <sub>x</sub>								
County										
Fresno .....	14.3	36.2	10.7	30.0	9.3	22.6	8.3	17.7	8.0	13.5
Kern (SJV) .....	12.7	50.3	9.7	42.7	8.7	31.7	8.2	25.1	7.9	18.6
Kings .....	2.8	10.7	2.1	8.9	1.8	6.7	1.7	5.3	1.6	4.0
Madera .....	3.4	9.3	2.5	7.7	2.2	5.8	2.0	4.7	1.9	3.6
Merced .....	5.1	19.9	3.7	16.7	3.2	12.4	2.9	9.9	2.8	7.4
San Joaquin .....	11.1	24.6	8.4	20.5	7.2	15.6	6.4	12.4	6.3	10.0
Stanislaus .....	8.5	16.9	6.4	13.9	5.6	10.6	5.0	8.4	4.7	6.4
Tulare .....	8.8	16.0	6.7	13.2	5.8	10.1	5.3	8.1	4.9	6.2

*I. Other Clean Air Act Requirements Applicable to Extreme Ozone Nonattainment Areas*

In addition to the requirements discussed above, title 1, subpart D of the CAA includes other provisions applicable to extreme ozone nonattainment areas, such as the San Joaquin Valley. We describe these provisions and their current status below for information purposes only.

1. Enhanced Vehicle Inspection and Maintenance Programs

CAA section 182(c)(3) requires states with ozone nonattainment areas classified under subpart 2 as serious or above to implement an enhanced motor vehicle inspection and maintenance (I/M) program in those areas. The requirements for those programs are provided in section 182(c)(3) and 40 CFR part 51, subpart S.

On July 1, 2010 (75 FR 38023), EPA approved California's inspection and maintenance program in the San Joaquin Valley as meeting the requirements of the CAA and applicable EPA regulations for enhanced I/M programs.

2. Reformulated Gasoline Program

As an extreme ozone nonattainment area for the 1-hour ozone standard, the San Joaquin Valley was covered under the federal reformulated gasoline (RFG) program. See CAA section 211(k)(10)(D). As an 8-hour ozone nonattainment area, SJV continues to be covered under the federal RFG program. See 40 CFR 80.70(m)(1)(i) and 70 FR 71685. California has its own RFG program (California Phase III RFG (CaRFG3)), which also applies in the SJV. EPA approved CaRFG3 program into the

California SIP on May 12, 2010. See 75 FR 26633.

3. New Source Review Rules

CAA section 182(a)(2)(C) requires states to develop SIP revisions containing permit programs for each of its ozone nonattainment areas. The SIP revisions are to include requirements for permits in accordance with CAA 172(c)(5) and 173 for the construction and operation of each new or modified major stationary source (with respect to ozone) anywhere in the nonattainment area. See also CAA sections 182(e). EPA's implementation regulations for nonattainment new source review (NSR) programs are in 40 CFR 51.165, and guidance specific to ozone nonattainment areas is provided in the preamble to the 8-hour ozone implementation rule, 70 FR 71612 at 71671–71684. EPA approved the SJV District's new source review rules, Rules 2201 "New and Modified Stationary Source Review" and Rule 2020 "Exemptions," into the SJV portion of the California SIP based in part on a conclusion that they adequately addressed the NSR requirements specific to extreme areas. See 75 FR 26102 (May 11, 2010).

4. Clean-Fuel Vehicle Program

CAA sections 182(c)(4)(A) and 246 require California to submit for EPA approval a SIP revision that includes measures to implement the Clean Fuel Fleet Program. Section 182(c)(4)(B) of the Act allows states to opt-out of the clean-fuel vehicle fleet program by submitting a SIP revision consisting of a program or programs that will result in at least equivalent long term

reductions in ozone-producing and toxic air emissions.

In 1994, CARB submitted a SIP revision to opt-out of the federal clean fuel fleet program and demonstrating that is low-emissions vehicle program achieved emission reductions at least as large as the federal program would. EPA approved the State's opt-out on August 27, 1999. See 64 FR 46849.

5. Gasoline Vapor Recovery

CAA section 182(b)(3) mandates that States submit a revised SIP by November 15, 1992 that requires owners or operators of gasoline dispensing systems to install and operate gasoline vehicle refueling vapor recovery ("Stage II") systems in ozone nonattainment areas classified as moderate and above. California's ozone nonattainment areas had implemented Stage II vapor recovery well before the passage of the CAA Amendments of 1990. See General Preamble at 13514.

Under California State law (Health and Safety Code Sections 41954), CARB is required to adopt procedures and performance standards for controlling gasoline emissions from gasoline marketing operations, including transfer and storage operations. State law also authorizes CARB, in cooperation with districts, to certify vapor recovery systems, to identify defective equipment, and to develop test methods. CARB has adopted numerous revisions to its vapor recovery program regulations. See Table A-7 in Appendix A to this TSD. See also CARB's Web site, <http://www.evrhome.org>.

In the San Joaquin Valley, the installation and operation of CARB-certified vapor recovery equipment is required and enforced by SJVUAPCD

Rules 4621 and 4622, the latest versions of which were approved by into the SIP on October 30, 2009. See 74 FR 56120.

#### 6. Enhanced Ambient Air Quality Monitoring

CAA Section 182(c)(1) requires that all ozone nonattainment areas classified as serious or above implement measures to enhance and improve monitoring for ambient concentrations of ozone, NO<sub>x</sub>, and VOC, and to improve monitoring of emissions of NO<sub>x</sub> and VOC.

The SJVAPCD's Annual Air Quality Monitoring Network Plan (June 30, 2010) describes the steps the state has taken to address the requirements of CAA section 182(c)(1). The SJV's Photochemical Assessment Monitoring Station (PAMS) network consists of six sites operated by SJVAPCD centered around Fresno and Bakersfield, as described on pages 13 and 17 of the monitoring network plan.<sup>37</sup> EPA has approved the SJVAPCD PAMS network. See letter, Matthew Lakin, EPA Region 9 to Scott Nester, SJVAPCD, November 1, 2010.

#### 7. CAA Section 185 Fee Program

CAA section 185 requires that the SIP for each severe and extreme ozone nonattainment area provide that, if the area fails to attain by its applicable attainment date, each major stationary source of VOC and NO<sub>x</sub> located in the area shall pay a fee to the State as a penalty for such failure for each calendar year beginning after the attainment date, until the area is redesignated as an attainment area for ozone. States are not yet required to implement CAA section 185 fee programs for the 1997 8-hour ozone standard.<sup>38</sup>

#### V. EPA's Proposed Actions

For the reasons discussed above, EPA is proposing to approve California's submitted SIP for attaining the 1997 8-Hour Ozone standard in the SJV extreme ozone nonattainment area. In the alternative, EPA is proposing to disapprove the submitted SIP with respect to certain requirements for transportation control strategies and measures pending resolution of petitions before the 9th Circuit U.S. Court of Appeals in *Association of*

*Irrigated Residents v. EPA*, 632 F.3d 584 (9th Cir. 2011). The submitted SIP consists of the SJV 2007 Ozone Plan (as revised 2008 and 2011) and the SJV-specific portions of CARB's 2007 State Strategy (as revised in 2009 and 2011) that address CAA and EPA regulations for attainment of the 1997 8-hour ozone NAAQS for the SJV.

Specifically, EPA proposes to approve under CAA section 110(k)(3) the following elements of the SJV 2007 8-Hour Ozone SIP:

1. The revised 2002 base year emissions inventories as meeting the requirements of CAA sections 182(a)(1) and 40 CFR 51.915;
2. The reasonably available control measures demonstration as meeting the requirements of CAA section 172(c)(1) and 40 CFR 51.912(d);
3. The reasonable further progress demonstration as meeting the requirements of CAA section 172(c)(2) and 182(c)(2)(B) and 40 CFR 51.910;
4. The attainment demonstration as meeting the requirements of CAA sections 182(c)(2)(A) and 40 CFR 51.908;

5. The provisions for the development of new technologies pursuant to CAA section 182(e)(5) and CARB's commitment to adopt and submit by 2020 contingency measures to be implemented if the new technologies do not achieve the planned emissions reductions, in addition to additional attainment contingency measures meeting the requirements of CAA 172(c)(9), pursuant to CAA section 182(e)(5) and CARB's commitment to develop and submit by 2020 revisions to the SIP that will: (1) Reflect modifications to the 2023 emission reduction target based on updated science and (2) identify additional strategies and implementing agencies needed to achieve the needed reductions by 2023.

6. The contingency measure provisions for failure to make RFP and to attain as meeting the requirements of CAA sections 172(c)(9) and 182(c)(9);

7. The demonstration that the SIP provides for transportation control strategies and measures sufficient to offset any growth in emissions from growth in VMT or the number of vehicle trips and to provide for RFP and attainment as meeting the requirements CAA section 182(d)(1)(A);

8. The revised motor vehicle emissions budgets for the RFP years of 2011, 2014, 2017, and 2020 and the attainment year of 2023 because they are derived from approvable RFP and attainment demonstrations and meet the requirements of CAA section 176(c) and 40 CFR part 93, subpart A;

9. SJVUAPCD's commitments to achieve specific aggregate emissions reductions of direct VOC and NO<sub>x</sub>, as listed in Table 6-1 of the 2007 Ozone Plan (as revised December 18, 2008); and

10. 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 in Appendix A-3 of the 2011 Ozone SIP Revisions, to achieve specific aggregate emissions reductions of VOC and NO<sub>x</sub> by 2023 as provided in CARB Resolution 07-28, Attachment B and the 2009 State Strategy Status Report; p. 20; and to achieve the emissions reductions needed to attain the 8-hour ozone standard in the SJV as provided in CARB Resolution 07-28 (September 27, 2007), Appendix B, p. 3, 2009 State Strategy Status Report, p. 13.

Finally, we propose to find that SJVUAPCD has satisfied the clean fuel/advanced technology requirement for boilers in CAA section 182(e)(3) for the SJV.

In the alternative, if the U.S. Court of Appeals for the 9th Circuit denies the Agency's petition for rehearing in *AIR v. EPA* and issues its mandate before EPA issues a final rule on the SJV 2007 8-Hour Ozone SIP, we propose to disapprove the SIP under CAA section 110(k)(3) with respect to the first element (*i.e.*, offsetting emissions growth) of CAA section 182(d)(1)(A) based on the plan's failure to include sufficient transportation control strategies and measures to offset the emissions from growth in VMT.

#### VI. Statutory and Executive Order Reviews

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

The Office of Management and Budget (OMB) has exempted this regulatory action from Executive Order 12866, entitled "Regulatory Planning and Review."

##### 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.* 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.

<sup>37</sup> Starting in 2007, EPA's monitoring rules (see 71 FR 61236, October 17, 2006) required the submittal and EPA action on annual monitoring network plans.

<sup>38</sup> SJVUAPCD submitted Rule 3170, "Federally Mandated Ozone Nonattainment Fee," and a fee-equivalent program to address the requirements of CAA section 185 for the 1-hour ozone standard. EPA recently proposed to approve these programs as a revision to the SJVUAPCD portion of the California SIP. See 76 FR 45212 (July 28, 2011).

Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

This rule will not have a significant impact on a substantial number of small entities because proposed SIP approvals under section 110 and subchapter I, part D of the Clean Air Act do not create any new requirements but simply propose to approve requirements that the State is already imposing. Therefore, because this proposed Federal SIP approval does not create any new requirements, I certify that this action will not have a significant economic impact on a substantial number of small entities. Moreover, due to the nature of the Federal-State relationship under the Clean Air Act, preparation of flexibility analysis would constitute Federal inquiry into the economic reasonableness of State action. The Clean Air Act forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co., v. U.S. EPA*, 427 U.S. 246, 255–66 (1976); 42 U.S.C. 7410(a)(2).

#### *D. Unfunded Mandates Reform Act*

Under sections 202 of the Unfunded Mandates Reform Act of 1995 (“Unfunded Mandates Act”), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector, of \$100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that this proposed 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 Federal action proposes to approve 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*

*Federalism* (64 FR 43255, August 10, 1999) revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental

Partnership). Executive Order 13132 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.” Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This proposed rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely proposes to approve a State rule implementing a Federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

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

EO 13175, entitled “Consultation and Coordination with Indian Tribal Governments” (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure “meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.” This proposed rule does not have tribal implications, as specified in EO 13175. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. Thus, EO

13175 does not apply to this rule. EPA specifically solicits additional comment on this proposed rule from tribal officials.

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

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the EO has the potential to influence the regulation. This proposed rule is not subject to Executive Order 13045, because it proposes to approve a State rule implementing a Federal standard.

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

This proposed rule is not subject to EO 13211 “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use” (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 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing a new regulation. To comply with NTTAA, EPA must consider and use “voluntary consensus standards” (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical.

The EPA believes that VCS are inapplicable to this proposed action. Today’s proposed action does not require the public to perform activities conducive to the use of VCS.

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

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 submittals, EPA's role is to approve or disapprove State choices, based on the criteria of the CAA. Accordingly, this action merely proposes to approve certain State requirements for inclusion into the SIP under CAA section 110 and subchapter I, part D 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 EO 12898.

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

Environmental protection, Air pollution control, Nitrogen dioxide,

Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

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

Dated: September 7, 2011.

**Jared Blumenfeld,**

*Regional Administrator, EPA Region 9.*

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