



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2023-0448; FRL-11677-01-R9]

Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve state implementation plan (SIP) revisions submitted by the State of California to meet Clean Air Act (CAA) requirements for the 1997 8-hour ozone national ambient air quality standards (NAAQS or “standards”) in the Riverside County (Coachella Valley), CA nonattainment area (“Coachella Valley”). These SIP revisions address the “Extreme” nonattainment area requirements for the 1997 8-hour ozone standards, including the requirements for the attainment demonstration, reasonable further progress demonstration, and reasonably available control measures demonstration, among others.

DATES: Comments must be received on or before [Insert date 30 days after date of publication in the *FEDERAL REGISTER*].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R09-OAR-2023-0448 at <https://www.regulations.gov>. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make.

The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>. If you need assistance in a language other than English or if you are a person with a disability who needs a reasonable accommodation at no cost to you, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Tom Kelly, Geographic Strategies and Modeling Section (AIR-2-2), U.S. Environmental Protection Agency, Region IX, (415) 972-3856, kelly.thomasp@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document, “we,” “us,” and “our” refer to the EPA.

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I. The 1997 8-Hour Ozone Standards and the Coachella Valley Nonattainment Area

A. Background on the 1997 8-Hour Ozone Standards

Ground-level ozone is formed when oxides of nitrogen (NO_x) and volatile organic compounds (VOC) react in the presence of sunlight.¹ 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.

Health effects associated with exposure to ground-level ozone include: reduced lung function, making it more difficult for people to breathe as deeply and vigorously as normal; irritated airways, causing coughing, sore or scratchy throat, pain when taking a deep breath and shortness of breath; increased frequency of asthma attacks; inflammation of and damage to the lining of the lung; increased susceptibility to respiratory infection; and aggravation of chronic lung diseases such as asthma, emphysema, and bronchitis. Ozone may continue to cause lung damage even when the symptoms have disappeared and breathing ozone may contribute to premature death, especially in people with heart and lung disease.²

In 1979, under section 109 of the Clean Air Act (CAA), the EPA established primary and secondary NAAQS for ozone at 0.12 parts per million (ppm) averaged over a 1-hour period.³ On July 18, 1997, the EPA revised the primary and secondary standards for ozone to set the acceptable level of ozone in the ambient air at 0.08 ppm, averaged over an 8-hour period (“1997 8-hour ozone standards”).⁴ The EPA set the 1997 8-hour ozone standards based on scientific evidence demonstrating that ozone causes adverse health effects at lower concentrations and over longer periods of time than was understood when the previous 1-hour ozone standards were set. The EPA determined that the 1997 8-hour standards would be more protective of human health,

¹ The State of California uses the term Reactive Organic Gases (ROG) rather than VOC in some of its ozone-related SIP submissions. As a practical matter, ROG and VOC refer to the same set of chemical constituents and for simplicity, we refer to this set of gases as VOC.

² EPA, “Fact Sheet, Final Revisions to the National Ambient Air Quality Standards for Ozone,” March 2008.

³ 44 FR 8202 (February 8, 1979).

⁴ 62 FR 38856.

especially for children and adults who are active outdoors, and individuals with a pre-existing respiratory disease, such as asthma. The 8-hour ozone standards were further strengthened in 2008 and 2015.⁵ Although the 1979 1-hour ozone standards and the 1997 8-hour ozone standards have subsequently been revoked following the promulgation of more stringent ozone standards, certain requirements that had applied under the revoked standards continue to apply under the anti-backsliding provisions of CAA section 172(e), including an approved attainment plan.⁶

B. The Coachella Valley 1997 8-Hour Ozone Nonattainment Area

Following promulgation of a new or revised NAAQS, the EPA is required by the CAA to designate areas throughout the nation as attaining or not attaining the standards. Effective June 15, 2004, the EPA designated nonattainment areas for the 1997 8-hour ozone standards.⁷ The designations and classifications for the 1997 8-hour ozone standards for California areas are codified at 40 CFR 81.305. In a rule governing certain facets of implementation of the 1997 8-hour ozone standards (the “Phase 1 Rule”), the EPA classified the Coachella Valley as “Serious” nonattainment for the 1997 8-hour ozone standards, with an attainment date no later than June 15, 2013.⁸ On November 28, 2007, the California Air Resources Board (CARB) requested that the EPA reclassify the Coachella Valley 1997 8-hour ozone nonattainment area from Serious to “Severe-15.” The EPA granted the reclassification, effective June 4, 2010, with an attainment date of not later than June 15, 2019.⁹ On June 11, 2019, CARB requested another reclassification for the Coachella Valley, from Severe-15 to “Extreme” nonattainment, which the EPA granted in a final rule published July 10, 2019.¹⁰ This reclassification to Extreme applied only to the

⁵ In 2008, the EPA revised and strengthened the NAAQS for ozone by setting the acceptable level of ozone in the ambient air at 0.075 ppm, averaged over an 8-hour period. 73 FR 16436 (March 27, 2008). In 2015, the EPA further tightened the 8-hour ozone standards to 0.070 ppm. 80 FR 65292 (October 26, 2015). The EPA has approved most elements of the 2008 ozone attainment plan for the Coachella Valley. 85 FR 57714 (September 16, 2020). The EPA has yet to act on the Coachella Valley attainment plan for the 2015 ozone NAAQS, submitted electronically on February 23, 2023. This action applies only to the 1997 8-hour ozone standards and does not address requirements for the 2008 and 2015 8-hour ozone standards.

⁶ 80 FR 12264, 12296 (March 6, 2015).

⁷ 69 FR 23858 (April 30, 2004).

⁸ *Id.* at 23885 and 23886.

⁹ 75 FR 24409 (May 5, 2010).

¹⁰ 84 FR 32841 (July 10, 2019).

portions of the Coachella Valley subject to state jurisdiction. At this time, areas of Indian country within the nonattainment area remain classified as Severe-15 for the 1997 8-hour ozone standards.¹¹ On January 15, 2020, we published a final rule setting a deadline of February 20, 2021, for the state to submit a SIP revision addressing the Extreme requirements of CAA section 182(e) and the revised title V and new source review rules for the Coachella Valley.¹²

The EPA previously approved many elements of the Coachella Valley's Severe attainment plan in a final rule dated June 12, 2017,¹³ including the reasonably available control measure (RACM) demonstration as meeting the requirements of CAA section 172(c)(1) and 40 CFR 51.1105(a)(1) and 51.1100(o)(17); the rate of progress (ROP) and reasonable further progress (RFP) demonstrations as meeting the requirements of CAA sections 172(c)(2) and 182(c)(2)(B) and 40 CFR 51.1105(a)(1) and 51.1100(o)(4); the attainment demonstration as meeting the requirements of CAA section 182(c)(2)(A) and 40 CFR 51.1105(a)(1) and 51.1100(o)(12); and the demonstration that the SIP submittal provides for transportation control strategies and measures sufficient to offset any growth in emissions from growth in vehicle miles travelled (VMT) or the number of vehicle trips, and to provide for RFP and attainment, as meeting the requirements of CAA section 182(d)(1)(A) and 40 CFR 51.1105(a)(1) and 51.1100(o)(10). The EPA did not act on the contingency measures submitted with the Severe-15 attainment plan, which were subsequently withdrawn by CARB, and we did not act on the motor vehicle emissions budgets, because the associated transportation conformity demonstration is not required for a revoked NAAQS. The EPA also approved the Enhanced motor vehicle inspection and maintenance (I/M) program for the Coachella Valley in a final rule published on July 1, 2010.¹⁴

¹¹ Id.; see also 40 CFR 81.305.

¹² 85 FR 2311 (January 15, 2020). See also proposal at 84 FR 44801 (August 27, 2019).

¹³ 82 FR 26854.

¹⁴ 75 FR 38023.

The Coachella Valley area is located within Riverside County.¹⁵ The Coachella Valley is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD or “District”), which also oversees air quality in the upwind South Coast Air Basin. The District and CARB are responsible for adopting and submitting plans to attain the 1997 8-hour ozone standards for nonattainment areas in their jurisdiction.

Ground level ozone in the Coachella Valley “is both directly transported from the [South Coast Air Basin] and formed photochemically from precursors emitted upwind and within the Coachella Valley.”¹⁶ The South Coast Air Basin is home to a much larger population than Coachella Valley and, based on inventory data from 2018, emissions of NO_x and VOC in the South Coast Air Basin are more than 20 times larger than those of Coachella Valley.¹⁷ Therefore, attainment of the 1997 8-hour ozone standards in Coachella Valley is heavily dependent on upwind reductions in the South Coast Air Basin. The largest sources of precursors are at the coastal and central portions of South Coast Air Basin. The area’s prevailing winds transport ozone precursors inland, forming ozone along the way. Maximum ozone concentrations occur “in the inland valleys of the Basin, extending from eastern San Fernando Valley through the San Gabriel Valley into the Riverside-San Bernardino area and the adjacent mountains.”¹⁸ As pollution is further transported through the San Gorgonio Pass into the Coachella Valley, ozone concentrations typically decrease from dilution with cleaner air, but ozone standards are still exceeded.

Air quality in the Coachella Valley has steadily improved in recent years. Design values have declined from 0.108 ppm in 2003 to 0.087 ppm in 2022.¹⁹ Design values are used to

¹⁵ For a precise description of the geographic boundaries of the area, see 40 CFR 81.305.

¹⁶ SCAQMD, “Final Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard,” dated December 2020, (“Coachella Valley Ozone Plan”), p. 2-1.

¹⁷ Id. at 3-13.

¹⁸ Id. at 2-1.

¹⁹ EPA, Design Values Report for the Joshua Tree National Monument, Indio, and Palm Springs monitors for 2021, 2021, and 2022, March 8, 2023, and contained in the docket for this proposed action.

designate and classify nonattainment areas, as well as to assess progress towards meeting the air quality standards.²⁰

II. CAA and Regulatory Requirements for Ozone Nonattainment Area SIPs

States must implement the 1997 8-hour ozone standards 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).

To assist states in developing effective plans to address ozone nonattainment, the EPA issued an implementation rule for the 1997 8-hour ozone standards (“1997 Ozone Implementation Rule”). This rule was finalized in two phases. The first phase of the rule addressed classifications for the 1997 8-hour ozone standards; applicable attainment dates for the various classifications; the timing of emissions reductions needed for attainment; and identified applicable requirements, such as clean fuels for boilers.²¹ The second phase addressed SIP submittal dates and the requirements for reasonably available control technology (RACT) and RACM, RFP, modeling and attainment demonstrations, contingency measures, and new source review.²² The rule was codified at 40 CFR part 51, subpart X.

The EPA announced the revocation of the 1997 8-hour ozone standards and the anti-backsliding requirements that apply upon revocation in a rulemaking that established final implementation rules for the 2008 8-hour ozone NAAQS.²³ Under these anti-backsliding requirements, areas that were designated as nonattainment for the 1997 8-hour ozone standards at the time the standards were revoked continue to be subject to certain SIP requirements that had previously applied based on area classifications for the standards.²⁴ Thus, although the 1997 8-hour ozone standards have been revoked, the Coachella Valley remains subject to many requirements for these standards as applicable to “Extreme” nonattainment areas.

²⁰ For more information about ozone design values, see 40 CFR 50, Appendix I.

²¹ 69 FR 23951 (April 30, 2004).

²² 70 FR 71612 (November 29, 2005).

²³ 80 FR 12264.

²⁴ Id. at 12296; 40 CFR 51.1105 and 51.1100(o).

We discuss the CAA and regulatory requirements for 1997 8-hour ozone nonattainment plans in more detail in the following section of this proposed rulemaking.

III. CARB's SIP Submittals to Address the Extreme Requirements for the 1997 8-Hour Ozone Standards in the Coachella Valley

A. CARB's SIP Submittals

1. The Coachella Valley Ozone Plan

On December 29, 2020, CARB submitted the “Final Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard,” dated December 2020 (“Coachella Valley Ozone Plan” or “Plan”), to the EPA as a revision to the California SIP.²⁵ The Plan addresses many of the Extreme nonattainment area requirements for the Coachella Valley for the 1997 8-hour ozone standards.

The Coachella Valley Ozone Plan includes the District's resolution of approval for the Plan (District Board Resolution 20-22) and the executive order commemorating CARB's adoption of the Plan as a revision to the California SIP (Executive Order S-20-34).²⁶ The Plan addresses the requirements for emissions inventory; RACM demonstration and adopted control strategy; attainment demonstration; ROP and RFP demonstrations; and clean fuels for boilers.

The Plan is organized into an executive summary, seven sections, and three appendices. Section 1, “Introduction,” identifies the nonattainment area and the nonattainment status for all EPA ozone standards, including the 1997 8-hour ozone standards; provides a history of air quality planning for the 1997 8-hour ozone standards; and explains the purpose of the Plan. Section 2, “Air Quality Trends,” describes the formation of ground-level ozone generally and specific factors that contribute to ozone formation in the Coachella Valley, and provides historic monitoring data and related discussion. Section 3, “Base Year and Future Year Emissions,” describes the methodology used for the area's emissions inventories, citing to the “Final 2016

²⁵ Letter dated December 28, 2020, from Richard W. Corey, CARB, to John W. Busterud, EPA, Subject: “Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard” (submitted electronically December 29, 2020).

²⁶ SCAQMD Board Resolution 20-22, December 4, 2020; Executive Order S-20-34, “Coachella Extreme Ozone Plan SIP Submittal,” December 28, 2020.

Air Quality Management Plan” (“2016 AQMP”)²⁷ where appropriate, and discusses the modeled inventories in detail. Section 4, “Control Strategy,” describes District and CARB rules that will achieve the emissions reductions relied upon in the Plan. Section 5, “Future Air Quality,” describes the modeling approach, including inputs, assumptions, methodology, and weight of evidence analysis (WOE). Section 6, “Other Clean Air Act Requirements” addresses various Extreme area requirements, including for RFP, RACT, RACM, contingency measures, offsetting of increases in VMT, NSR requirements, use of clean fuels or advanced control technology for boilers, and traffic control measures during heavy traffic hours. Sections 7 through 9 address various procedural requirements, including compliance with the California Environmental Quality Act, and notice and comment procedures. The Plan includes three supporting appendices, which describe the emissions inventories and existing District and CARB rules and regulations relied on in the Plan.

2. The Coachella Valley VMT Offset Demonstration

On March 18, 2021,²⁸ CARB submitted the “VMT Offset Demonstration.”²⁹ The VMT Offset Demonstration is intended to show compliance with the requirement at CAA section 182(d)(1) for nonattainment areas classified Severe or Extreme to adopt sufficient transportation control strategies (TCSs) and transportation control measures (TCMs) to offset any growth in VMT.

The VMT Offset Demonstration contains an Executive Summary, Introduction, Methodology, Staff Recommendations, and appendices. The appendices contain the following sections: “Sensitivity Test to Estimate Emissions for the 2023 Attainment Year with Motor

²⁷ SCAQMD, “Final 2016 Air Quality Management Plan,” dated March 2017, submitted electronically by CARB to the EPA on April 27, 2017, and approved by the EPA on September 16, 2020 (85 FR 57714). The 2016 AQMP includes a Coachella Valley attainment plan for the 2008 ozone standards.

²⁸ Letter dated March 15, 2021, from Richard W. Corey, CARB, to Deborah Jordan, EPA (submitted electronically March 18, 2021).

²⁹ CARB, “Staff Report, 2020 Coachella Valley Vehicle Miles Traveled Emissions Offset Demonstration,” January 22, 2021.

Vehicle Control Program Frozen at 2002;” “EMFAC2014 Analysis;”³⁰ “EMFAC2011 Analysis;”³¹ and “Summary.”

The VMT Offset Demonstration includes a base year emissions estimate and three different estimates for the 2023 attainment year. One estimate has 2023 on-road vehicle emissions controls frozen as the requirements existed in 2002. One estimate shows 2023 emissions freezing the VMT at the levels from 2002. The final estimate reflects expected emissions for 2023 based on the submitted control strategy, which, as described further in Section IV.E of this document, must be less than both previous estimates for 2023 for an adequate VMT offset demonstration.

As the VMT Offset Demonstration explains, several post-2002 emissions control measures are factored into EMFAC2017 (the latest CARB model for on-road emissions at the time the demonstration was prepared) and cannot be removed. To correct this, the VMT Offset Demonstration includes the results of a sensitivity analysis to determine the emissions reductions associated with CARB’s Advanced Clean Cars program and the Truck and Bus Regulations (calculated using EMFAC2014), and the additional stringency of CARB’s inspection and maintenance programs (calculated using EMFAC2011).

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 the state provided adequate public notice and an opportunity for a public hearing, consistent with the EPA’s implementing regulations in 40 CFR 51.102.

The SCAQMD provided public notice of its intent to approve the Coachella Valley Ozone Plan on November 4, 2020.³² The public comment period ended with a public hearing on

³⁰ EMFAC2014 is the 2014 version of CARB’s Emissions Factor model.

³¹ EMFAC2011 is the 2011 version of CARB’s Emissions Factor model.

³² SCAQMD, Proof of Publication for Notice of Public Hearing, dated November 4, 2020.

December 4, 2020; no comments were submitted during the public hearing.³³ The SCAQMD responded to written comments in Section 9 of the Plan. The SCAQMD Governing Board documented the adoption of the Plan in Board Resolution 20-22, dated December 4, 2020. In addition to the comment period and hearing, the SCAQMD convened several steering committees and advisory groups beginning in August 2020.³⁴ As documented in Executive Order S-20-34, CARB determined that the Plan met the requirements of the Act, adopted the Plan, and ordered it to be submitted to the EPA for inclusion in the SIP.

The Plan includes proof of publication for the notice of the District public hearings, as evidence that all hearings were properly noticed. Therefore, we find the Coachella Valley Ozone Plan meets the procedural requirements of CAA sections 110(a) and 110(l).

CARB provided public notice of its intent to approve the VMT Offset Demonstration on January 21, 2021. The public comment period ended with a board meeting on February 25, 2021. One person commented during the public meeting, urging progress in addressing air pollution in the Coachella Valley without directly addressing the VMT Offset Demonstration. The CARB Governing Board documented the adoption of the VMT Offset Demonstration in Board Resolution 21-1, dated February 25, 2021.

CAA section 110(k)(1)(B) requires that the EPA determine whether a SIP submittal is complete within 60 days of receipt. This section of the CAA also provides that any plan that the EPA has not affirmatively determined to be complete or incomplete is deemed complete by operation of law six months after the date of submittal. The SIP submittal for the Coachella Valley Ozone Plan became complete by operation of law on June 28, 2021, and the submittal for the VMT Offset Demonstration became complete by operation of law on September 18, 2021.

³³ SCAQMD, Draft Minutes of Public Hearing, dated December 4, 2020.

³⁴ SCAQMD, Governing Board Package for the Coachella Valley Extreme Area Plan, dated December 4, 2020, Public Process, page 3.

IV. Review of the Coachella Valley Ozone Plan

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 a “comprehensive, accurate, current inventory of actual emissions from all sources” of the relevant pollutants in accordance with guidance provided by the Administrator. While this inventory is not a specific requirement under the anti-backsliding provisions at 40 CFR 51.1105 and 51.1100(o), it provides support for demonstrations required under these anti-backsliding rules. Additionally, a baseline emissions inventory is needed for the attainment demonstration and for meeting RFP requirements. The 1997 Ozone Implementation Rule identifies 2002 as the baseline year for RFP purposes.³⁵ Emissions inventory guidance issued by EPA sets specific planning requirements pertaining to future milestone years for reporting RFP and to attainment demonstration years.³⁶ Key RFP analysis years in the RFP demonstration include 2008 and every subsequent 3 years until the attainment date.

We have evaluated the emissions inventories in the Coachella Valley Ozone Plan to determine if they are consistent with EPA guidance and adequate to support the Plan’s RACM, RFP, ROP, and attainment demonstrations.

2. Emissions Inventories in the Coachella Valley Ozone Plan

Chapter 3 and Appendix I of the Plan contain detailed emissions estimates. The District’s process for developing these emissions estimates followed a similar methodology to the inventories in the 2016 AQMP.³⁷ In general, Appendix III of the 2016 AQMP includes a more detailed discussion of this methodology, and the Plan explains relevant differences between the two emissions estimates.

³⁵ 69 FR 23951, 23980 (April 30, 2004).

³⁶ 70 FR 71612.

³⁷ 2016 AQMP, approved by the EPA on September 16, 2020 (85 FR 57714).

The Plan’s emissions estimates are seasonally adjusted to summer emissions when ozone concentrations are highest. The Plan divides emissions into the four categories of “point,” “area,” “on-road,” and “off-road” sources, with point and area sources grouped as “stationary sources” in summary tables. The base year for the emissions estimates is 2018. As Chapter 3 of the Plan explains, that data was projected to 2020 and 2023. Appendix I also contains full emissions breakdowns projected back to 2002 (the baseline year for the RFP demonstration), and forward to 2020 (a milestone year in the RFP demonstration) and 2023 (the attainment year). Table 1 compares emissions for 2002, 2018, 2020, and 2023.

Table 1. Coachella Valley NO_x and VOC Emissions Inventory Summaries for 2002, 2018, and 2023 (average summer weekday emissions in tons per day)^a								
Category	NO _x				VOC			
	2002	2018	2020	2023	2002	2018	2020	2023
Combined Point and Area Sources	1.40	1.59	1.14	1.18	7.63	7.18	7.74	8.32
On-Road Mobile Sources	41.07	11.18	9.53	6.85	10.47	3.89	3.33	2.90
Other Mobile Sources	11.77	5.56	5.10	4.30	4.76	3.30	3.23	3.22
Totals	54.24	18.33	15.77	12.33	22.85	14.37	14.30	14.44

^a Source: Coachella Valley Ozone Plan, Appendix I for 2002, Table 3-1 for 2018, and Table 3-2 for 2023.

As described in the Plan, SCAQMD Rule 301 requires stationary sources emitting 4 tons per year (tpy) or more of NO_x or VOC to report facility emissions directly to the District.

Sources with NO_x and VOC emissions below these thresholds are classified as area sources. The area source category includes aggregated emissions data from processes that are individually small and widespread. CARB and SCAQMD jointly estimate emissions for more than 400 area source categories. Appendix I of the Plan includes aggregate categories, such as consumer products, but not every individual category (e.g., hairspray). The Plan states that “emissions from these sources are estimated using specific activity information and emission factors. Activity data are usually obtained from survey data or scientific reports, e.g., Energy Information Administration reports for fuel consumption other than natural gas fuel, Southern

California Gas Company for natural gas consumption, paint supplier data under SCAQMD Rule 314, ‘Fees for Architectural Coatings,’ and District databases.”³⁸ Emission factors are values representing the amount of NO_x or VOC per amount of fuel, hours of operation, or some other measurement. The Plan’s emission factors are based on “rule compliance factors, source tests, manufacturer’s product or technical specification data, default factors (mostly from AP-42, the EPA’s published emission factor compilation), or weighted emission factors derived from the point source facilities’ annual emissions reports.”³⁹ Area source emissions are based on emissions projections for 2018 and 2023 from the 2016 AQMP, “using growth and control factors derived from regulatory and socio-economic data.”⁴⁰

For on-road mobile source emissions, which consists of emissions from trucks, automobiles, buses, and motorcycles, the Plan uses the vehicle activity from the “2016–2040 Regional Transportation Plan/Sustainable Communities Strategy” (“2016–2040 RTP/SCS”) developed by the Southern California Association of Governments (SCAG). The Plan’s mobile source emission factors come from CARB’s 2017 emissions factor model, known as “EMFAC2017,” which was the latest model available for estimating on-road motor vehicle emissions in California at the time of its submission.⁴¹

The Plan also contains off-road NO_x and VOC inventories developed by CARB using category-specific methods and models.⁴² The off-road mobile source category includes aircraft, trains, ships, and off-road vehicles and equipment used for construction, farming, commercial, industrial, and recreational activities. The 2016 AQMP provides the growth factors used to project base year emissions for the off-road sources.⁴³

³⁸ Id.

³⁹ Id. at 3-2.

⁴⁰ Id.

⁴¹ EMFAC is short for EMISSION FACTOR. The EPA announced the availability of the EMFAC2017 model for use in state implementation plan development and transportation conformity in California on August 15, 2019. 84 FR 41717. The EPA’s approval of the EMFAC2017 emissions model for SIP and conformity purposes was effective on the date of publication of the notice in the *Federal Register*.

⁴² Detailed information on CARB’s off-road motor vehicle emissions inventory methodologies is found at: <https://ww2.arb.ca.gov/msei-road-documentation>.

⁴³ 2016 AQMP, Appendix III, pp. III-1-24 to III-1-27.

Future emissions forecasts are primarily based on demographic and economic growth projections provided by SCAG, and control factors developed by the District in reference to the 2018 base year. Growth factors used to project these baseline inventories are derived mainly from data obtained from SCAG.⁴⁴

3. Proposed Action on the Emissions Inventories

We have reviewed the emissions inventories in the Coachella Valley Ozone Plan and the inventory methodologies used by the District and CARB for consistency with CAA section 182(a)(1) and EPA guidance. We find that the base year and projected attainment year inventories are comprehensive, accurate, and current inventories of actual and projected emissions of NO_x and VOC in the Coachella Valley as of the date of the submittal. Accordingly, we propose to find that these inventories provide an appropriate basis for the various other elements of the Coachella Valley Ozone Plan, including the RACM, ROP, RFP, and attainment demonstrations. The technical support document (TSD) accompanying this proposed rulemaking identifies SCAQMD rules submitted to the EPA for SIP approval after submittal of the Coachella Valley Ozone Plan and compares emissions in the Plan with emissions in the previously approved Severe attainment plan.⁴⁵

B. Reasonably Available Control Measures Demonstration and Adopted Control Strategy

1. RACM Requirements

CAA section 172(c)(1) requires that each attainment plan provide for the implementation of all reasonable available control measures as expeditiously as practicable and provide for attainment of the NAAQS. The RACM demonstration requirement is a continuing applicable requirement for the Coachella Valley under the EPA's anti-backsliding rules that apply for revoked standards.⁴⁶

⁴⁴ 2016 AQMP, 7-25, and Appendix III, p. III-2-6.

⁴⁵ EPA, Region IX, "Technical Support Document, Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards, Docket: EPA-R09-OAR-2023-0448, Additional Supporting Information for Notice of Proposed Rulemaking," March 2024.

⁴⁶ See 40 CFR 51.1105(a)(1) and 51.1100(o)(17).

The EPA has previously provided guidance interpreting the RACM requirement in the “General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990” (“General Preamble”)⁴⁷ and in a memorandum entitled “Guidance on Reasonably Available Control Measures (RACM) Requirements and Attainment Demonstration Submissions for the Ozone NAAQS,” John Seitz, 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.⁴⁸

Any measures that are necessary to meet these requirements that are not already either federally promulgated, part of the SIP, or otherwise creditable in SIPs must be submitted in enforceable form as part of a state’s attainment plan for the area. CAA section 172(c)(6) requires nonattainment plans to include enforceable emissions 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 standards in such area by the applicable attainment date.⁴⁹

The purpose of the RACM analysis is to determine whether or not control measures exist that are economically and technically reasonable and that provide emissions reductions that would advance the attainment date for nonattainment areas. The EPA defines RACM as any potential control measure for application to point, area, on-road, and non-road emission source

⁴⁷ See 57 FR 13498, 13560 (April 16, 1992). The General Preamble describes the 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 standards. The EPA continues to rely on certain guidance in the General Preamble to implement the 8-hour ozone standards under title I.

⁴⁸ General Preamble at 13560; see also Memorandum dated December 14, 2000, from John S. Seitz, Director, Office of Air Quality Planning and Standards, to Regional Air Directors, “Additional Submission on RACM from States with Severe One-Hour Ozone Nonattainment Area SIPs.”

⁴⁹ See also CAA section 110(a)(2)(A).

categories that: (1) is technologically feasible; (2) is economically feasible; (3) does not cause “substantial widespread and long-term adverse impacts;” (4) is not “absurd, unenforceable, or impracticable;” and (5) can advance the attainment date by at least one year.⁵⁰

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 the EPA has issued a Control Techniques Guidelines document. CAA section 182(f) requires that RACT under section 182(b)(2) also apply to major stationary sources of NO_x. In Extreme areas, a major source is a stationary source that emits or has the potential to emit at least 10 tpy of VOC or NO_x.⁵¹ Under the 1997 Ozone Implementation rule, states were required to submit SIP revisions meeting the RACT requirements of CAA sections 182(b)(2) and 182(f) no later than 27 months after designation for the 1997 8-hour ozone standards (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.⁵² The EPA has approved the Severe area RACT SIP for the SCAQMD for the 1997 ozone standards, which included rules applicable to the Coachella Valley.⁵³ With the reclassification from Severe to Extreme nonattainment, the major source threshold shifts from 25 tpy to 10 tpy, changing the NO_x and VOC sources subject to the RACT requirements. While this action does not address the Coachella Valley’s RACT demonstration, we will consider the rules in relevant RACT demonstrations as potentially addressing RACM demonstration requirements.

2. Control Strategy and RACM Demonstration in the Coachella Valley Ozone Plan

a. The District’s Component of the RACM Demonstration

⁵⁰ General Preamble at 13560.

⁵¹ CAA section 182(d).

⁵² See 40 CFR 51.912(a). Following the reclassification of the Coachella Valley to Extreme nonattainment for the 1997 8-hour ozone standards, the EPA established a deadline of February 14, 2021, for the State to submit SIP revisions addressing the CAA section 182(b)(2) and 182(f) RACT requirements. 85 FR 2311, 2312 (January 15, 2020).

⁵³ 73 FR 76947 (December 18, 2008).

The RACM demonstration begins on page 6-12 of the Coachella Valley Ozone Plan. The Plan's RACM demonstration builds on the SCAQMD's prior RACM demonstrations for the Coachella Valley and South Coast Air Basin for the 2008 ozone standards in the 2016 AQMP, which the EPA approved in 2020.⁵⁴ The Plan supplements this demonstration by evaluating as potential RACM new rules put in place after the 2016 AQMP and rules for area sources. The SCAQMD compared its rules with rules from other air districts within California (i.e., the Sacramento Metropolitan Air Quality Management District, the San Joaquin Valley Air Pollution Control District, the Ventura County Air Pollution Control District, the Antelope Valley Air Quality Management District, and the Mojave Desert Air Quality Management District) and from air quality agencies in Delaware and Texas.

The evaluation of other districts' and states' rules for stationary and area sources did not identify any rules as potential RACM. In all but a few cases, SCAQMD rules were as stringent or more stringent than other rules. Where other rules were more stringent, the SCAQMD still determined that its rules provided RACM-level controls. For example, the VOC control efficiency of SCAQMD Rule 461, "Organic Liquid Loading," is less stringent than another rule (i.e., 90 percent vs. 95 percent), but actual operational control efficiency at SCAQMD facilities exceeded the higher (95 percent) limit. In another example, SCAQMD Rule 1162, "Polyester Resin Operations," which regulates more than 15 different categories of wood product coatings, has a lower limit than another district for one category, high-solid stains (240 grams per liter vs. 350 grams per liter), but "for almost all categories, Rule 1136 is as stringent as the other agency's rule and provides RACM level of control for this source category."⁵⁵

The Plan also highlights rules and programs revised since the completion of the 2016 AQMP that are anticipated to achieve additional reductions when fully implemented as planned. Table 4-1 of the Plan shows these measures have collectively further reduced emissions by 6.3

⁵⁴ The Coachella Valley Ozone Plan incorrectly identifies the EPA's approval of the RACM demonstration as 82 FR 26854 (June 12, 2017), but the actual approval was published at 85 FR 57714 (September 16, 2020).

⁵⁵ Coachella Valley Ozone Plan, Table 6-10 at p. 6-17.

tons per day (tpd) of NO_x and 2.3 tpd of VOC.⁵⁶ These reductions would occur primarily in the South Coast Air Basin; however, as the Plan explains, the ozone air quality problems of the Coachella Valley are primarily caused by transported emissions from within the South Coast Air Basin. The TSD for this proposed rulemaking supplements the District's analysis with a discussion of rules adopted by the SCAQMD since the completion of the Coachella Valley Ozone Plan.

The 2016 AQMP included several commitments for additional emissions reductions, such as for the applications of zero or near-zero NO_x emissions appliances in the residential and commercial sectors (CMB-02), additional enhancement in reducing energy use in existing residential buildings (ECC-03), and co-benefits from existing residential and commercial building energy efficiency mandates (ECC-02). Collectively, these measures are expected to achieve 2.6 tpd of NO_x reductions by 2023 in the South Coast Air Basin.⁵⁷ Consistent with the emissions reductions from new and recently revised rules, the benefits achieved are primarily expected in the South Coast Air Basin.

b. Local Jurisdiction Component of the RACM Demonstration

With respect to on-road mobile sources, we note that SCAG is the designated metropolitan planning organization (MPO) for a large portion of southern California, including Coachella Valley, and SCAG's membership includes local jurisdictions within the Coachella Valley. For the 2016 AQMP, SCAG evaluated a list of possible transportation control measures (TCMs) as one element of the larger RACM evaluation for the plan. TCMs are, in general, measures designed to reduce emissions from on-road motor vehicles through reductions in VMT or traffic congestion.

In our final actions on the Severe area RACM requirements for the Coachella Valley for the 1997 and 2008 8-hour ozone standards,⁵⁸ we concluded that the evaluation processes

⁵⁶ Table 4-1 does not total the emission reductions for all measures.

⁵⁷ Coachella Valley Ozone Plan, p. 6-20.

⁵⁸ 82 FR 26854 and 85 FR 57714.

undertaken by SCAG were consistent with the EPA’s RACM guidance and found that there were no additional RACM, including no additional TCMs that would advance attainment of the 1997 8-hour ozone standards in the South Coast Air Basin.⁵⁹ More recently, we came to the same conclusion with respect to RACM and TCMs for the South Coast in our action on the ozone portion of the SCAQMD’s “Final 2012 Air Quality Management Plan.”⁶⁰

Although TCMs are implemented in the upwind South Coast Air Basin area to meet CAA requirements, neither the SCAQMD nor CARB rely on implementation of any TCMs in the Coachella Valley to demonstrate implementation of RACM in the Coachella Valley Ozone Plan. The SCAQMD and CARB justify the absence of TCMs in the Coachella Valley by reference to the significant influence of pollutant transport from the South Coast Air Basin on ozone conditions in the Coachella Valley.⁶¹

c. The Statewide Component of the RACM Demonstration

CARB has primary responsibility for reducing emissions in California from new and existing on-road and off-road engines and vehicles, motor vehicle fuels, and consumer products. CARB has been a leader in the development of stringent control measures for on-road and off-road mobile sources, fuels, and consumer products. Because of this role, the Plan identifies CARB’s 2016 State Strategy as a key component of the control strategy necessary to attain the State’s ozone goals, which includes attaining the 1997 ozone NAAQS. The Plan states that California has received waivers and authorizations for over 100 regulations and lists several recent examples, such as rules governing light-, medium-, and heavy-duty vehicles; off-road vehicles and engines; and other sources including motorcycles, recreational boats, off-road recreational vehicles, cargo handling equipment, and commercial harbor craft.⁶² The Plan highlights reductions achieved through “more stringent engine emissions standards, in-use

⁵⁹ See also 81 FR 75764 (November 1, 2016) (proposed rule for 1997 8-hour ozone standards).

⁶⁰ See 79 FR 29712, 29720 (May 23, 2014) (proposed rule); 79 FR 52526 (September 3, 2014) (final rule).

⁶¹ See Coachella Valley Ozone Plan, p. 6-29.

⁶² Coachella Valley Ozone Plan, p. 6-26.

requirements, incentive funding, and other policies and initiatives” since the EPA’s 2019 approval of the South Coast Air Basin RACM demonstration for the 2008 ozone standards.⁶³

The CARB portion of the RACM evaluation also covers consumer products. CARB regulates VOC emissions from more than 130 consumer products, with the most recent rule revisions in 2018. The federal regulations for consumer products were last amended in 1998.⁶⁴ Since submittal of the Plan, CARB has submitted additional consumer product regulations for approval into the SIP, but EPA has yet to act on this submittal.⁶⁵

3. The EPA’s Evaluation of the Control Strategy and RACM

We find that the Coachella Valley Ozone Plan includes a thorough update of the District’s RACM demonstration for the 2008 ozone standards from the 2016 AQMP that we previously approved in 2020.⁶⁶ This updated demonstration focuses on new rules put in place by five California air districts and two states since completion of the 2016 AQMP, and we propose to find that it demonstrates that the District’s stationary source controls represent RACM for the 1997 8-hour ozone standards.

With respect to mobile sources, we find that CARB’s current program addresses the full range of mobile sources in the South Coast Air Basin and Coachella Valley through regulatory programs for both new and in-use vehicles. Moreover, we find that the process conducted by CARB to prepare the 2016 State Strategy was reasonably designed to identify additional available measures within CARB’s jurisdiction, and that CARB has adopted those measures that are reasonably available. As noted in the TSD supporting this rulemaking, following submittal of the 2016 State Strategy, CARB has continued to submit mobile source control measures, such as the Heavy-Duty Inspection and Maintenance Regulation, which expands the inspection of heavy-

⁶³ Id. at 6-28 et seq.

⁶⁴ Id. at 6-29.

⁶⁵ Letter dated April 25, 2023, from Steve S. Cliff, CARB, to Martha Guzman, EPA Region IX, transmitting 2021 amendments to CARB’s consumer product regulations (submitted electronically April 25, 2023).

⁶⁶ 85 FR 57714.

duty trucks beyond particulate matter emissions to include the equipment controlling NO_x emissions.

With respect to TCMs, we find that SCAG's process for identifying additional TCM RACM and conclusion that the TCMs being implemented in the South Coast Air Basin are inclusive of all TCM RACM to be reasonably justified and supported. For the 2016 AQMP, given the minimal and diminishing emissions benefits generally associated with TCMs, no combination of TCMs implemented in the Coachella Valley could have contributed to advancing the attainment date in the Coachella Valley, and no TCMs are reasonably available for implementation in the Coachella Valley for the purposes of meeting the RACM requirement.⁶⁷

Additionally, we find that CARB's consumer products program generally exceeds the controls in place throughout other areas of the country. The additional commitments included in the 2016 State Strategy further strengthen this program by achieving additional VOC reductions. Some of the committed measures have already been submitted to the EPA, including lower VOC emission limits for seven consumer product categories.⁶⁸

While the Plan does not quantify the amount of reductions necessary to advance attainment by one year, in view of the current timing of this proposed approval, the Coachella Valley no longer has a practical opportunity to advance attainment prior to 2023. Therefore, the EPA is proposing to find that the Coachella Valley Ozone Plan provides for implementation of all RACM necessary to demonstrate expeditious attainment of the 1997 8-hour ozone standards in the Coachella Valley, consistent with the applicable requirements of CAA section 172(c)(1) and 40 CFR 51.1105(a)(1) and 51.1100(o)(17).

C. Attainment Demonstration

1. Statutory and Regulatory Requirements

⁶⁷ While not required for CAA purposes, the 2016–2040 RTP/SCS includes a list of projects for the Coachella Valley, some of which represent the types of projects often identified as TCMs, such as traffic signalization projects and bike lane projects. 2016–2040 RTP/SCS, Appendix, “Project List.”

⁶⁸ Letter dated April 25, 2023, from Steve S. Cliff, CARB to Martha Guzman, EPA Region IX, transmitting 2021 amendments to CARB's consumer product regulations (submitted electronically April 25, 2023).

CAA section 182(c)(2)(A) requires that a plan for an ozone nonattainment area classified Serious or above include a “demonstration that the plan ... 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 ... to be at least as effective.” The attainment demonstration predicts future ambient concentrations for comparison to the NAAQS, making use of available information on measured concentrations, meteorology, and current and projected emissions inventories of ozone precursors, including the effect of control measures in the Plan.

In accordance with 40 CFR 51.903(a), areas classified Extreme for the 1997 ozone NAAQS must demonstrate attainment as expeditiously as practicable, but no later than 20 years after the effective date of designation to nonattainment. The Coachella Valley was designated nonattainment for the 1997 ozone NAAQS effective June 15, 2004,⁶⁹ and accordingly, the area must demonstrate attainment of the standards by June 15, 2024. An attainment demonstration must show attainment of the standards by the calendar year prior to the attainment date, so in practice, Extreme nonattainment areas must demonstrate attainment in 2023.

The EPA’s recommended procedures for modeling ozone as part of an attainment demonstration are contained in “Modeling Guidance for Demonstrating Air Quality Goals for Ozone, PM_{2.5}, and Regional Haze,” EPA 454/R-18-009, November 2018 (“Modeling Guidance”).⁷⁰ The Modeling Guidance includes recommendations for a modeling protocol, model input preparation, model performance evaluation, use of model output for the numerical NAAQS attainment test, and modeling documentation. Air quality modeling is performed using meteorology and emissions from a base year, and the predicted concentrations from this base

⁶⁹ 69 FR 23858.

⁷⁰ The EPA modeling guidance is available on the EPA web site at: <https://www.epa.gov/scram/state-implementation-plan-sip-attainment-demonstration-guidance>; direct link: https://www3.epa.gov/ttn/scram/guidance/guide/O3-PM-RH-Modeling_Guidance-2018.pdf. Additional EPA modeling guidance can be found in 40 CFR 51 Appendix W, “Guideline on Air Quality Models,” 82 FR 5182 (January 17, 2017); available at <https://www.epa.gov/scram/clean-air-act-permit-modeling-guidance>.

case modeling are compared to air quality monitoring data from that year to evaluate model performance.

Once the model performance is determined to be acceptable, future year emissions are simulated with the model. The relative (or percent) change in modeled concentrations due to future emissions reductions provides a relative response factor (RRF). Each monitoring site's RRF is applied to its monitored base period design value to provide the future design value for comparison to the NAAQS. The Modeling Guidance also recommends supplemental air quality analyses, which may be used as part of a weight of evidence (WOE) analysis. A WOE analysis corroborates the attainment demonstration by considering evidence other than the main air quality modeling attainment test, such as trends and additional monitoring and modeling analyses.

The Modeling Guidance also does not require a particular year to be used as the base year for 1997 8-hour ozone plans.⁷¹ The Modeling Guidance states that the most recent year of the National Emissions Inventory may be appropriate for use as the base year for modeling, but that other years may be more appropriate when considering meteorology, transport patterns, exceptional events, or other factors that may vary from year to year.⁷² Therefore, the base year used for the attainment demonstration need not be the same year used to meet the requirements for emissions inventories and RFP.

With respect to the list of adopted measures, CAA section 172(c)(6) requires that nonattainment area plans include enforceable emissions 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 timely attainment of the NAAQS.⁷³

2. Summary of the State's Submission

⁷¹ Modeling Guidance, 35.

⁷² Id.

⁷³ See also CAA section 110(a)(2)(A).

a. Photochemical Modeling

Chapter 5 of the Coachella Valley Ozone Plan includes a description of photochemical modeling performed by the SCAQMD for the 1997 8-hour ozone standards. The modeling relies on a 2018 model base year and projects design values to demonstrate attainment of the 1997 ozone NAAQS in 2023.

Chapter 5, “Future Air Quality,” of the Plan, includes a description of current air quality in the Coachella Valley, a summary of the ozone modeling approach, a model performance evaluation, results of the NAAQS attainment test, an unmonitored area analysis, an assessment of ozone sensitivity to NO_x and VOC reductions, and a WOE analysis. The Plan uses the same approach that is outlined in more detail in the 2016 AQMP, with some updates to the modeling platform, input databases, and emissions inventories. Like the 2016 AQMP, the Plan uses the EPA recommended Community Multiscale Air Quality Modeling System (CMAQ, version 5.0.2) modeling platform. An overview of the modeling approach and modeling protocol can be found in the 2016 AQMP, Appendix V, “Modeling and Attainment Demonstrations,” Chapter 1, “Modeling Overview,” and Chapter 2 “Modeling Protocol.” While the 2016 AQMP used 2012 as the model base year, the Plan uses 2018 as the model base year on which to develop meteorological conditions and emissions inventories. Meteorological fields were developed for 2018 using the Weather Research and Forecasting Model (WRF, version 4.0.3) from the National Center for Atmospheric Research. Input information and model evaluation for WRF version 4.03 can be found in the SCAQMD, “Final 2022 Air Quality Management Plan,” adopted December 2, 2022 (“2022 AQMP”), Appendix V, Chapter 3, “Meteorological Modeling and Sensitivity Analyses.”

CMAQ and WRF are both recognized in the Modeling Guidance as technically sound, state-of-the-art models. The areal extent and the horizontal and vertical resolution used in these models is adequate for modeling Coachella Valley ozone. The WRF modeling uses routinely available meteorological and air quality data collected during 2018. Those data cover May

through September, a period that spans the period of highest ozone concentrations in the Coachella Valley. The District evaluated the WRF model performance and concluded that the WRF simulation for 2018 provided representative meteorological fields that well characterized the observed conditions. The District's conclusions were supported by statistical metrics and hourly time series plots of water vapor mixing ratio, wind speed, direction, and temperature for the southern California domain as well an evaluation of the predicted planetary boundary layer height and the coast-to-inland temperature gradient.

Ozone model performance statistics are described in the Coachella Valley Ozone Plan at Chapter 5.⁷⁴ This chapter includes a table of statistics recommended in the Modeling Guidance and hourly ozone time series plots for 2018. The hourly time series and statistics show generally good model performance, though many individual daily ozone peaks are underpredicted.⁷⁵ Note that, because only relative changes are used from the modeling, the underprediction of ozone concentrations does not mean that future concentrations will be underestimated.

After model performance for the 2018 base case was accepted, the model was applied to develop RRFs for the attainment demonstration. This entailed running the model with the same meteorological inputs as before, but with adjusted emissions inventories to reflect the expected changes between 2018 and the 2023 attainment year. The base year or “reference year” modeling inventory was the same as the inventory for the modeling base case. The 2023 inventory projects the base year into the future by including the effect of economic growth and emissions control measures. The set of 153 days from May 1 through September 30, 2018, was simulated and analyzed to determine 8-hour average maximum ozone concentrations for the 2018 and 2023 emissions inventories. To develop the RRFs for the 1997 8-hour ozone standards, only the top 10 days were used, consistent with the Modeling Guidance.⁷⁶

⁷⁴ Coachella Valley Ozone Plan, Chapter 5, 5-4 – 5-5.

⁷⁵ Coachella Valley Ozone Plan, Figure 5-2.

⁷⁶ Modeling Guidance, section 4.2.1.

The Modeling Guidance addresses attainment demonstrations with ozone NAAQS based on 8-hour averages and for the 1997 ozone NAAQS the Coachella Valley Ozone Plan carries out the attainment test procedure consistent with the Modeling Guidance. The RRFs are calculated as the ratio of future to base year concentrations; these were then applied to weighted base year design values for each monitor to arrive at future year design values.⁷⁷ Ozone is measured continuously at two locations in the Coachella Valley at the Palm Springs and Indio air monitoring stations. The modeled 2023 ozone design value at the Palm Springs site (the higher of the two sites) is 0.0832 ppm; this value demonstrates attainment of the 1997 ozone NAAQS.⁷⁸

The Plan modeling includes an “Unmonitored Area Analysis” (UAA) to assess whether locations without a monitor can reach attainment; the standard attainment test procedure covers only locations with a monitor. A UAA is recommended in the Modeling Guidance, but not required in the 1997 Ozone Implementation Rule – Phase 2.⁷⁹ Consistent with EPA Guidance, the District calculated five-year weighted design values for all monitoring stations that meet EPA’s data quality requirements within the modeling domain and spatially interpolated concentrations for the area between the design values. RRFs were then applied to the interpolated measurement field to calculate future year design values. The District asserts that when all valid ozone design values were interpolated, they were too sparsely populated near the boundary of Coachella Valley to reasonably guide design value contours. To compensate, the District excluded the Morongo monitor and added several pseudo-monitors throughout the domain to guide the interpolation.⁸⁰ With these modifications the predicted future design values are all below the level of the 1997 8-hour ozone standards throughout the domain.

⁷⁷ The Modeling Guidance recommends that RRFs be applied to the average of three 3-year design values centered on the base year. For a 2018 base year, recommended design values would be 2016-2018, 2017-2019, and 2018-2020. This amounts to a 5-year weighted average of individual year 4th high concentrations, centered on the base year of 2018, and so is referred to as a weighted design value. The Coachella Valley Ozone Plan was adopted in December 2020, before 2020 monitoring data was available, so the Plan instead uses design values for 2015-2017, 2016-2018, and 2017-2019.

⁷⁸ Coachella Valley Ozone Plan, 5-6.

⁷⁹ 70 FR 71612.

⁸⁰ Coachella Valley Ozone Plan, p. 5-6.

In addition to the formal attainment demonstration, the Plan also contains a WOE demonstration that includes ambient ozone data and trends and a sensitivity analysis using CMAQ 5.3.1, a later version of the model to complement the regional photochemical modeling analyses.

b. Control Strategy

The control strategy for attainment of the 1997 ozone NAAQS in the Coachella Valley relies primarily on timely attainment in 2023 of the 1997 ozone NAAQS in the South Coast Air Basin. As described in the Coachella Valley Ozone Plan and in Section I.B of this document, the primary cause of ozone in the Coachella Valley is the transport of ozone and its precursors from the South Coast Air Basin.

Because ozone concentrations at the Palm Springs monitor—the only monitoring site currently exceeding the 8-hour 1997 ozone NAAQS—are more sensitive to changes in NO_x than VOCs,⁸¹ the Plan’s control strategy relies on NO_x reductions and limited VOC reductions. Since the EPA’s promulgation of the 1997 ozone NAAQS, NO_x emissions in the South Coast Air Basin have declined by 76 percent.⁸² Mobile sources, responsible for 80 percent of regional NO_x emissions, are the primary focus of future emissions reductions.

A thorough discussion of the SCAQMD’s control strategy for the Coachella Valley appears in the 2016 AQMP. The 2016 AQMP provides the District’s control strategy through the 2026 attainment year for the 2008 ozone standards. The Coachella Valley Ozone Plan provides an update to that discussion, specifically focusing on the measures implemented after the 2016 AQMP that result in emissions reductions by 2023.

The South Coast Air Basin control strategy for the 1997 ozone NAAQS relies on emissions reductions from already-adopted measures, commitments by the District to certain regulatory and nonregulatory initiatives and aggregate emissions reductions, and commitments

⁸¹ Coachella Valley Ozone Plan, p. 5-8 and Figure 5-5.

⁸² Coachella Valley Ozone Plan, p. 4-1.

by SCAQMD and CARB to certain regulatory and nonregulatory initiatives and aggregate emissions reductions. In the 2016 AQMP, already-adopted measures are expected to achieve approximately 66 percent of the NO_x reductions needed from a 2012 base year for the South Coast Air Basin to attain the 1997 ozone NAAQS in 2023. To address the remaining emissions reductions, which are shown in Table 2, the 2016 AQMP included District and CARB aggregate commitments to achieve additional emissions reductions by 2023. These reductions are discussed in the EPA’s proposed approval of the 2016 AQMP for the South Coast Air Basin.⁸³

Table 2. District and CARB Aggregate Emission Reduction Commitments for 2023 (tpd)		
Plan	NO _x	VOC
SCAQMD ^a	23	6
CARB ^b	113	50-51
Total	136	56-57

^a Source: 2016 AQMP at Table 4-10.

^b Source: 2016 AQMP at Table 4-5.

The Plan updates this analysis to incorporate more recent SCAQMD and CARB rules and programs that continue to achieve emissions reductions in future baseline emissions for both the South Coast Air Basin and Coachella Valley. For SCAQMD, the revised regulations are Regulation XX, “RECLAIM Program;” Rule 1111, “Reduction of NO_x Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces,” and the CLEANair Furnace Rebate Program; Rule 1146.2, “Large Water Heater, Small Boilers and Process Heaters;” and Rule 1147, “NO_x Reductions from Miscellaneous Sources.” The District’s incentive programs include the Carl Moyer Memorial Air Quality Standards Attainment Program to retrofit and replace heavy-duty diesel engines; Clean School Buses Incentives; and the Surplus Off-Road Opt-In for NO_x Program for low emission heavy duty engines for off-road diesel fleets.⁸⁴ For CARB, the regulations that continue to result in improved future emissions estimates include the Advanced

⁸³ 84 FR 28132 (June 17, 2019), Sections III.D.2.B.i and ii.

⁸⁴ Coachella Valley Ozone Plan, pp. 4-2 to 4-4.

Clean Cars program, the Truck and Bus Regulation, and the In-Use Large Spark Ignition Fleet Regulation.⁸⁵

The Plan also highlights rules and programs that continue to achieve reductions that have not been factored into the future emissions estimates for SCAQMD and CARB. SCAQMD efforts include Rule 1117, “Emissions of Oxides of Nitrogen from Glass Melting Furnaces;” Rule 1134, “Emissions of Oxides from Stationary Gas Turbines”; Rule 1135, “Emissions of Oxides of Nitrogen from Electricity Generating Facilities;” and facility-based mobile source measures covering marine ports railyards, warehouse/distribution centers, commercial developments and new developments and redevelopment projects.⁸⁶ Table 4-1 shows estimated reductions for these rules and facility-based mobile source measures. Some of the measures continue to increase reductions in future years, including adopted CARB regulations not reflected in the future emissions estimate such as the Innovative Clean Transit Regulation; the Zero-Emission Airport Shuttle Regulation; the Advanced Clean Truck regulation and the Omnibus Low-NO_x Regulation. All measures that achieve further emissions reduction and not reflected in the future 2023 emissions estimate serve to increase the likelihood that the Coachella Valley attains the 1997 ozone NAAQS.

c. Attainment Demonstration

Chapter 5 of the Coachella Valley Ozone Plan describes the Coachella Valley’s progress toward attaining the 1997 ozone standards. The Plan summarizes the District’s modeling for the area and concludes that the measures included in the control strategy (including CARB commitments) will result in the area attaining the standards no later than 2023. The WOE discussion provides additional discussion of air quality trends and projections in the Coachella Valley and determines that the area is on track to attain the 1997 ozone NAAQS by 2023.

3. The EPA’s Review of the State’s Submission

⁸⁵ The complete list of incentive programs is provided on pages 4-3 to 4-4 of the Coachella Valley Ozone Plan.

⁸⁶ Id. at 4-4 to 4-6.

a. Photochemical Modeling

As discussed in Section III.A of this document, we are proposing to approve the base year emissions inventory for the attainment demonstration and to find that the future year emissions projections in the Coachella Valley Ozone Plan reflect appropriate calculation methods and that the latest planning assumptions are properly supported by SIP-approved stationary source and mobile source measures. The Plan employs the modeling protocol from the 2016 AQMP, and Appendix V of that document in particular, with updates to the modeling platform, input databases, and emissions inventory.⁸⁷ The discussion below addresses modeling information included in both the Plan and the 2016 AQMP. Because of the importance of ozone transport from the South Coast to attainment in the Coachella Valley, and the close interactions of the modeling for each area, we have considered the modeling for both the Coachella Valley and the South Coast Air Basin. Similar and additional discussion for the South Coast Air Basin can be found in our June 17, 2019 proposed action on the 2016 AQMP.⁸⁸

Based on our review of the Coachella Valley Ozone Plan, the EPA finds that the photochemical modeling is adequate for purposes of supporting the attainment demonstration.⁸⁹ First, we note the discussion of modeling procedures, tests, and performance analyses called for in the Modeling Protocol (i.e., 2016 AQMP, Appendix V, Chapter 2) and the good model performance (Coachella Valley Ozone Plan, Chapter 5). Second, we find the WRF meteorological model results and performance statistics, including hourly time series graphs of water vapor mixing ratio, wind speed, direction, and temperature for both the South Coast and the Coachella Valley, to be satisfactory and consistent with our Modeling Guidance.⁹⁰ Performance was evaluated for the winter season (January, November, and December 2018) and

⁸⁷ Coachella Valley Ozone Plan, p. 5-2 and 5-8.

⁸⁸ 84 FR 28132.

⁸⁹ The EPA's review of the modeling and attainment demonstration is discussed in greater detail in section V of the TSD for this action ("Modeling and Attainment Demonstration").

⁹⁰ Modeling Guidance, 30.

summer season (June, July, and August 2018).⁹¹ Diurnal variation of temperature, humidity, and surface wind are well represented by WRF. Temperature and wind speed are more accurate in the summer season than in the winter months. The observed temperature gradient from the coast to inland was well characterized by WRF. Both the observational data and WRF simulation showed distinct diurnal variations in wind speed in the summer, with a strong sea breeze in the afternoon responsible for transport inland. In general, the WRF simulations reproduce the dominant wind direction as the measurement at each station. The diurnal cycle in PBL height was well captured by the simulations. Overall, the daily WRF simulation for 2018 provided representative meteorological fields that characterized the observed conditions well.

The model performance statistics for ozone are described in Chapter 5 of the Plan and are based on the statistical evaluation recommended in the Modeling Guidance. Model performance was provided for 8-hour daily maximum ozone in the nonattainment area. As noted in Section IV.C.2.a of this document, the statistics and hourly time series show generally good performance, and while many individual daily ozone peaks are underpredicted, this does not mean that future concentrations based on monitored data and modeled RRFs will be underestimated. In addition, the WOE analysis presented provides additional information with respect to the observational trends and further supports the model performance.

Notwithstanding the general sufficiency of the modeling, we find that the Plan's UAA analysis does not provide justification for excluding the Morongo monitor or for adding pseudo-monitors to alter the interpolation. We therefore conclude the UAA is not sufficiently supported, and we are not evaluating those results here. However, we conclude that based on the density of the ozone monitoring stations within the Coachella Valley and upwind, as well as the uncertainty in the interpolation due to complex topography, the attainment demonstration is adequately supported without a UAA. We recommend that CARB and SCAQMD evaluate the continuing

⁹¹ Temperature, water vapor mixing ratio, and wind speed were evaluated in terms of normalized gross bias and normalized gross error.

adequacy of the existing monitors as part of their ambient air monitoring network 5-year network assessment.

The modeling shows that existing control measures from CARB and the District, together with the commitments in the 2016 AQMP and further updated in the Coachella Valley Ozone Plan, are sufficient to attain the 1997 8-hour ozone standards by 2023 at all monitoring sites in the Coachella Valley. We are proposing to find the air quality modeling adequate to support the attainment demonstration for the 1997 ozone NAAQS, based on reasonable meteorological and ozone modeling performance, and supported by the WOE analysis.

For additional information, please see the TSD for this action.

b. Control Strategy

The control strategy in the Coachella Valley Ozone Plan relies primarily on previously adopted and future emissions reductions detailed in the 2016 AQMP. As described in Section IV.C.2.b of this document, a significant portion of the emissions reductions needed to attain the 1997 ozone NAAQS in the South Coast by 2023 will be obtained through previously adopted measures in the SIP, and the balance of the reductions needed for attainment will result from enforceable commitments to take certain specific actions within prescribed periods and to achieve aggregate tonnage reductions of VOC or NO_x by specific years. The aggregate commitments provide the remaining additional upwind reductions necessary for the Coachella Valley to attain the 1997 ozone NAAQS in 2023. In our October 1, 2019 approval of the 2016 South Coast Ozone SIP, the EPA approved the control strategy to attain the 2008 ozone standards for the Coachella Valley by 2026, including CARB's and the District's aggregate commitments, for the South Coast to attain the 1997 ozone NAAQS.⁹²

For the reasons described in that action and based on the District's demonstration specific to the Coachella Valley described in this section, we propose to find the District's control

⁹² 84 FR 52005.

strategy acceptable for purposes of attaining the 1997 8-hour ozone standards in the Coachella Valley. For additional information, please see the TSD for this action.

c. Attainment Demonstration

Based on our proposed determinations that the photochemical modeling and control strategy are acceptable, we propose to approve the attainment demonstration for the 1997 ozone NAAQS in the Coachella Valley Ozone Plan as meeting the requirements of CAA section 182(c)(2)(A) and 40 CFR 51.1105(a)(1) and 51.1100(o)(12). This demonstration shows the area attaining the 1997 8-hour ozone standards by the outermost statutory attainment date of June 15, 2024.

D. Rate of Progress and Reasonable Further Progress Demonstrations

1. Rate of Progress

For areas classified as Moderate or above, CAA section 182(b)(1) requires a SIP revision providing for ROP, defined as a one time, 15 percent actual VOC emissions reduction during the six years following the baseline year 1990, or an average of 3 percent per year. While the ROP demonstration is a potentially applicable continuing applicable requirement, the EPA has already approved the 15 percent VOC only ROP demonstration for Coachella Valley for the 1997 8-hour ozone standards, so this requirement has been met.⁹³

2. Reasonable Further Progress

a. Requirements

CAA sections 172(c)(2) and 182(b)(1) require plans for nonattainment areas to provide for RFP. RFP is defined in CAA section 171(1) as “such annual incremental reductions in emissions of the relevant air pollutant as are required by this part or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable [NAAQS] by the applicable date.” CAA section 182(c)(2)(B) requires ozone nonattainment areas classified as Serious or higher to submit no later than 3 years after designation for the 1997 8-hour ozone

⁹³ 82 FR 26854.

standards an RFP SIP providing for an average of 3 percent per year of VOC and/or NO_x emissions reductions for (1) the 6-year period immediately following the baseline year; and (2) all remaining 3-year periods after the first 6-year period out to the area's attainment date.⁹⁴ The RFP requirement is a continuing applicable requirement for the Coachella Valley under the EPA's anti-backsliding rules that apply once a standard has been revoked. See 40 CFR 51.1105(a)(1) and 51.1100(o)(4).

CAA section 182(c)(2)(C) allows for the substitution of NO_x emissions reductions in place of VOC reductions to meet the RFP requirements. According to the EPA's NO_x Substitution Guidance,⁹⁵ the substitution of NO_x reductions for VOC reductions must be done on a percentage basis, rather than a straight ton-for-ton exchange. There are two steps for substituting NO_x for VOC. First, an equivalency demonstration must show that the cumulative RFP emissions reductions are consistent with the NO_x and VOC emissions reductions determined in the ozone attainment modeling demonstration. Second, specified reductions in NO_x and VOC emissions should be accomplished after the initial 6-year ROP reductions are achieved and before the attainment date, consistent with the continuous RFP emission reduction requirement.⁹⁶

Section 182(b)(1) requires that reductions exclude emissions reductions from four prescribed federal programs (i.e., the federal motor vehicle control program, the federal Reid vapor pressure (RVP) requirements, any RACT corrections previously specified by the EPA, and any I/M program corrections necessary to meet the Basic I/M level); and (3) be calculated from an "adjusted" baseline relative to the year for which the reduction is applicable.

⁹⁴ Following the reclassification of the Coachella Valley to Extreme nonattainment for the 1997 8-hour ozone standards, the EPA established a deadline of February 14, 2021, for the state to submit SIP revisions addressing the CAA section sections 172(c)(2) and 182(b)(1) RFP requirements. 85 FR 2311, 2312.

⁹⁵ EPA Office of Air Quality Planning and Standards, "NO_x Substitution Guidance," December 1993.

⁹⁶ As noted in Section IV.D.1 of this document, Coachella Valley has already met the 15 percent ROP demonstration requirement.

The adjusted base year inventory must exclude the emissions reductions from fleet turnover between 1990 and 1996 and from federal RVP regulations promulgated by November 15, 1990, or required under section 211(h) of the Act. The net effect of these adjustments is that states are not able to take credit for emissions reductions that would result from fleet turnover of current federal-standard cars and trucks, or from already existing federal fuel regulations. However, the SIP can take full credit for the benefits of any post-1990 vehicle emissions standards, as well as any other new federal or state motor vehicle or fuel programs that will be implemented in the nonattainment area, including Tier 1 exhaust standards, new evaporative emissions standards, reformulated gasoline, Enhanced I/M, California low emissions vehicle program, transportation control measures, etc.

b. RFP Demonstration in the State Submittal

The Coachella Valley Ozone Plan contains emissions estimates for the baseline, milestone, and attainment years.⁹⁷ Tables 3 and 4 show the RFP demonstration.⁹⁸ The RFP demonstration calculates future year VOC targets from the 2002 baseline, consistent with CAA 182(c)(2)(B)(i), which requires reductions of “at least 3 percent of baseline emissions each year,” and it substitutes NO_x reductions for VOC reductions beginning in milestone year 2020 to meet VOC emission targets. The District concluded that RFP demonstration meets the applicable requirements for each milestone year as well as the attainment year.

⁹⁷ Coachella Valley Ozone Plan, pp. 6-1 to 6-7.

⁹⁸ The years between 2002 and 2020 were addressed in the “Staff Report, Proposed Updates to the 1997 8-Hour Ozone Standard, State Implementation Plans; Coachella Valley and Western Mojave Desert” (“2014 SIP Update”) which covered the Coachella Valley’s Severe area requirements for the 1997 ozone standards. 82 FR 26854.

Table 3. Calculation of RFP Demonstration for Coachella Valley – VOC^a			
VOC Emission Calculations	2002^b	2020^b	2023^b
1. Baseline VOC (tpd)	22.85	14.30	14.44
2. Required Percent Reductions from Base Year (%)	n/a	51%	60%
3. Target VOC Level (tpd)	n/a	11.2	9.1
4. Cumulative Milestone Year Shortfall (tpd)	n/a	3.1	5.3
5. Cumulative Shortfall in VOC (%)	n/a	13.6%	37.1%
6. Incremental Milestone Year Shortfall (%)	n/a	13.6%	23.5%

^a Source: Table 6-1 of the Coachella Valley Ozone Plan.

^b Units are tons per day (summer planning) unless otherwise noted.

Table 4. Calculation of RFP Demonstration for Coachella Valley – NO_x^a			
NO_x Emission Calculations	2002^b	2020^b	2023^b
1. Baseline NO _x Emissions (tpd)	54.24	15.77	12.33
2. Reductions in NO _x Emissions since Base Year (tpd)	n/a	38.47	41.91
3. Percent Reductions in NO _x Emissions since Base Year	n/a	70.9%	77.3%
4. Previous NO _x Substitution (%)	n/a	n/a	13.6%
5. Percent Available for NO _x Substitution (%)	n/a	70.9%	63.7%
6. Incremental Milestone Year VOC Shortfall (%)	n/a	13.6%	23.5%
7. Percent Surplus Reduction (%)	n/a	57.3%	40.2%
8. RFP Compliance	n/a	Yes	Yes

^a Source: Table 6-2 of the Coachella Valley Ozone Plan. Table 4 of this document has been adapted from Table 6-2 to remove adjustments related to use of excess NO_x emissions reductions to address the contingency measures requirements of CAA sections 179(c)(9) and 182(c)(9). Under the EPA's most recent guidance (described in Section IV.G.1 of this document), excess NO_x reductions may not be used for this purpose.

^b Units are tons per day (summer planning) unless otherwise noted.

CAA section 182(b)(1)(D) prohibits states from taking credit for certain categories of measures in an RFP demonstration. The three categories of non-creditable measures identified in CAA sections 182(b)(1)(D)(iii)-(iv) achieved their reductions many years ago and reductions from these measures would have no effect for the RFP milestones modeled in the Plan.⁹⁹ All categories of non-creditable emissions are considered de minimis for the 2008 or 2015 ozone NAAQS (and therefore do not need to be calculated as part of in an RFP demonstration for these standards).¹⁰⁰ While emissions from the category identified in CAA section 182(b)(1)(D)(i)

⁹⁹ 80 FR 12264, 12274.

¹⁰⁰ 40 CFR 51.1110(a)(7) and 51.1310(a)(7).

(“any measure relating to motor vehicle exhaust or evaporative emissions promulgated by the Administrator by January 1, 1990”) affect the demonstration for the 1997 8-hour ozone standards, the change in this effect becomes smaller with each successive milestone year. CARB has provided estimates for non-creditable emissions, which are less than 10 percent of the base year inventory. For more information about the correction to the non-creditable reductions in the 2014 SIP Update, including a revised RFP demonstration, see the TSD supporting this proposed rule.

3. Proposed Action on the ROP and RFP Demonstrations

As noted in Section IV.D.1 of this document, the EPA has already approved a 15-percent ROP plan for the Coachella Valley in our prior action on SCAQMD’s submittal for the 1997 ozone NAAQS;¹⁰¹ therefore, we find that the District and CARB have met the ROP requirement for this area.

Based on our review of the emissions inventory documentation in the Coachella Valley Ozone Plan, we find that CARB and the District have used the most recent planning and activity assumptions, emissions models, and methodologies in developing the RFP baseline and milestone year emissions inventories, and that the District and CARB have used an appropriate calculation method to demonstrate RFP. For these reasons, we have determined that the Plan demonstrates RFP in the 2023 attainment year, consistent with applicable CAA requirements and EPA guidance. We therefore propose to approve the Extreme RFP demonstration for the Coachella Valley for the 1997 ozone NAAQS under CAA sections 172(c)(2), 182(b)(1) and 182(c)(2) and 40 CFR 51.1105(a)(1) and 51.1100(o)(4).

E. Vehicle Miles Travelled Offset Demonstration

1. Requirements for a VMT Offset Demonstration

CAA section 182(d)(1)(A) requires a state to submit a revision for each area classified as Severe or above to identify and adopt specific enforceable transportation control strategies

¹⁰¹ 82 FR 26854.

(TCSs) and TCMs to offset growth in emissions from growth in VMT or numbers of vehicle trips in such area. CAA section 182(d)(1)(A) also requires the SIP to attain reductions in motor vehicle emissions consistent with RFP demonstrations; and to implement measures as necessary to demonstrate attainment. We refer to CAA section 182(d)(1)(A) as the “VMT offset requirement.” The VMT offset requirement is a continuing applicable requirement for the Coachella Valley under the EPA’s anti-backsliding rules that apply once a standard has been revoked.¹⁰²

In response to the Ninth Circuit Court of Appeals’ decision in *Association of Irrigated Residents v. EPA*,¹⁰³ we issued a memorandum titled “Implementing Clean Air Act Section 182(d)(1)(A): Transportation Control Measures and Transportation Control Strategies to Offset Growth in Emissions Due to Growth in Vehicle Miles Travelled” (“August 2012 Guidance”).¹⁰⁴ The August 2012 Guidance discusses the meaning of the terms TCSs and TCMs, and recommends that both TCSs and TCMs be included in the emissions calculations made for the purpose of determining the degree to which any hypothetical growth in emissions due to growth in VMT should be offset. Generally, TCS is a broad term that encompasses many types of controls (including, for example, motor vehicle emissions limitations, I/M programs, alternative fuel programs, other technology-based measures, and TCMs) that would fit within the regulatory definition of “control strategy.”¹⁰⁵ TCM is defined at 40 CFR 51.100(r) to mean “any measure that is directed toward reducing emissions of air pollutants from transportation sources,” including, but not limited to, measures listed in CAA section 108(f), and generally refers to programs intended to reduce the VMT, the number of vehicle trips, or traffic congestion, such as

¹⁰² 40 CFR 40 CFR 51.1105(a)(1) and 51.1100(o)(10).

¹⁰³ 632 F.3d. 584, 596-597 (9th Cir. 2011), reprinted as amended on January 27, 2012, 686 F.3d 668, further amended February 13, 2012 (ruling additional TCMs are required whenever vehicle emissions are projected to be higher than they would have been had VMT not increased, even when aggregate vehicle emissions are actually decreasing).

¹⁰⁴ EPA, Office of Transportation and Air Quality, “Implementing Clean Air Act Section 182(d)(1)(A): Transportation Control Measures and Transportation Control Strategies to Offset Growth in Emissions Due to Growth in Vehicle Miles Travelled,” EPA-420-B-12-053, August 2012.

¹⁰⁵ See, e.g., 40 CFR 51.100(n).

programs for improved public transit, designation of certain lanes for passenger buses and high-occupancy vehicles, trip reduction ordinances, and similar measures.

The August 2012 Guidance also explains how states may demonstrate that the VMT offset requirement is satisfied in conformance with the Court's ruling. In the approach recommended by the August 2012 Guidance, states develop one emission inventory estimate for the base year, and three different emissions inventory scenarios for the attainment year. Two of these scenarios would represent hypothetical emissions scenarios that would provide the basis to identify the "growth in emissions" due solely to the growth in VMT, and one that would represent projected actual motor vehicle emissions after fully accounting for projected VMT growth and offsetting emissions reductions obtained by all creditable TCSs and TCMs. The August 2012 Guidance contains specific details on how states might conduct the calculations.

The base year on-road VOC emissions inventory should be based on VMT in that year, and it should reflect all enforceable TCSs and TCMs in place in the base year. This would include vehicle emissions standards, state and local control programs such as I/M programs or fuel rules, and any additional implemented TCSs and TCMs that were already required by or credited in the SIP as of the base year.

The first of the emissions calculations for the attainment year would be based on the projected VMT and trips for that year and assume that no new TCSs or TCMs beyond those already credited in the base year inventory have been put in place since the base year. This calculation demonstrates how emissions would hypothetically change if no new TCSs or TCMs were implemented, and VMT and trips were allowed to grow at the projected rate from the base year. This estimate would show the potential for an increase in emissions due solely to growth in VMT and trips, representing a no action scenario. Emissions in the attainment year in this scenario may be lower than those in the base year due to fleet turnover to lower-emitting vehicles. Emissions may also be higher if VMT and/or vehicle trips are projected to sufficiently increase in the attainment year.

The second of the attainment year emissions calculations would also assume that no new TCSs or TCMs beyond those already credited have been put in place since the base year and would also assume no growth in VMT and trips between the base year and attainment year. Like the no-action attainment year estimate described previously, emissions in the attainment year may be lower than those in the base year due to fleet turnover, but the emissions would not be influenced by any growth in VMT or trips. This emissions estimate, the VMT offset ceiling scenario, would reflect the maximum attainment emissions that should be allowed to occur under the statute as interpreted by the Ninth Circuit because it shows what would happen under a scenario in which no offsetting TCSs or TCMs have yet been put in place and VMT and trips are held constant during the period from the area's base year to its attainment year.

These two hypothetical status quo estimates are necessary steps in identifying target emission levels. Comparison of the first two attainment year calculations would identify whether there was a hypothetical growth in emissions due to growth in VMT that needs to be offset, and as a result whether further TCMs or TCSs beyond those that have been adopted and implemented are needed.

The third calculation incorporates the emissions that are actually expected to occur in the area's attainment year after taking into account reductions from all enforceable TCSs and TCMs that were put in place after the baseline year. This estimate would be based on the VMT and trip levels expected to occur in the attainment year (i.e., the VMT and trip levels from the first estimate) and all of the TCSs and TCMs expected to be in place and for which the SIP will take credit in the area's attainment year, including any TCMs and TCSs put in place since the base year. This represents the projected actual (attainment year) scenario. If this emissions estimate is less than or equal to the emissions ceiling that was established in the second of the attainment year calculations, the TCSs or TCMs for the attainment year would be sufficient to fully offset the hypothetical growth in emissions identified by comparison of the first two attainment year calculations.

If the projected actual attainment year emissions are greater than the VMT offset ceiling established in the second of the attainment year emissions calculations even after accounting for post-baseline year TCSs and TCMs, the state would need to adopt and implement additional TCSs or TCMs. To meet the VMT emissions offset requirement of section 182(d)(1)(A) as interpreted by the Ninth Circuit, the additional TCSs or TCMs would need to offset the growth in emissions and bring the actual emissions down to at least the same level as the attainment year VMT offset ceiling estimate in the second attainment year calculation.

2. The Coachella Valley VMT Offset Demonstration

The VMT Offset Demonstration uses EMFAC2017 to estimate on-road emissions. EMFAC2017 was the latest EPA-approved motor vehicle emissions model for California available at the time the VMT Offset Demonstration was prepared.¹⁰⁶ The EMFAC2017 results, however, were adjusted based on a sensitivity analysis using older previously approved EMFAC models, EMFAC2011 and EMFAC2014. As the VMT Offset Demonstration explains, several post-2002 emissions control measures are factored into EMFAC2017 and cannot be removed. To correct this, the VMT Offset Demonstration included the results of a sensitivity analysis to determine the emissions reductions associated with CARB's Advanced Clean Cars I program¹⁰⁷ and the Truck and Bus Regulations¹⁰⁸ with EMFAC2014, and the additional stringency of CARB's I/M programs¹⁰⁹ calculated using EMFAC2011.¹¹⁰

All of the EMFAC models calculate emissions from two combustion processes (i.e., running exhaust and start exhaust) and four evaporative processes (i.e., hot soak, running losses, diurnal losses, and resting losses). The models combine trip-based VMT data and speed

¹⁰⁶ The EPA approved and announced the availability of EMFAC2017, the latest update to the EMFAC model for use by State and local governments to meet CAA requirements at that time, in a rulemaking published at 84 FR 41717 (August 15, 2019).

¹⁰⁷ The EPA approved the Advanced Clean Car program in the California SIP on June 16, 2016 (81 FR 39424).

¹⁰⁸ The EPA approved the Truck and Bus Rule into the California SIP on April 4, 2012 (77 FR 20308).

¹⁰⁹ The EPA approved California's I/M program into the California SIP on July 1, 2010 (75 FR 38023).

¹¹⁰ Two other control programs started after 2002, the Heavy-Duty Greenhouse Gas Regulation and Low Carbon Fuel Standard, have no impact on VOC emissions. VMT Offset Demonstration, p. 9, n. 9.

distribution from the 2016–2040 RTP/SCS, along with vehicle data from the California Department of Motor Vehicles and the corresponding emission rates to calculate emissions.

Emissions from running exhaust, start exhaust, hot soak, and running losses are a function of how much a vehicle is driven. As such, emissions from these processes are directly related to VMT and vehicle trips, and the State included emissions from them in the calculations that provide the basis for the revised Coachella Valley VMT Offset Demonstration.¹¹¹ Resting and diurnal losses occur independently of vehicle activity were and not considered in the demonstration.¹¹²

The VMT Offset Demonstration also includes the previously described three attainment year scenarios (i.e., no new measures; no VMT Growth or VMT offset ceiling; and projected actual) for 2023. Table 5 summarizes the emissions estimates for the base year and the three scenarios.

Table 5. VMT Offset Inventory Scenarios and Results for the 1997 8-Hour Ozone Standards^a				
Scenario	VMT		Controls	VOC Emissions
	Year	1000 miles/day	Year	tpd
Base Year	2002	11,091	2002	8.5
No New Measures	2023	14,508	2002	2.8
No New Measures and No VMT Growth (VMT Offset Ceiling)	2002	11,091	2002	2.0
Projected Actual	2023	14,508	2018	1.9

^a Source: Coachella Valley VMT Offset Demonstration, Table 1.

For the base year scenario, CARB ran the EMFAC2017 model for the 2002 RFP base year using VMT and starts data corresponding to those years. For the no new measures scenario, CARB estimated 2023 on-road vehicle emissions using EMFAC2017, considering the estimated

¹¹¹ VMT Offset Demonstration, p. 2.

¹¹² This fact is noted in several locations of the VMT Offset Demonstration, e.g., p. 10.

increase in VMT,¹¹³ but adding 0.33 tpd to account for the additional reductions associated with the Advanced Clean Cars I program, Truck and Bus Regulation, and I/M programs that are not creditable reductions in these calculations. Likewise, CARB added 0.25 tpd to the VMT offset ceiling to account for the same factors.

For the VMT offset ceiling scenario, the State ran the EMFAC2011 model for the attainment year but with VMT and starts data corresponding to base year values. Like the no action scenario, the EMFAC2011 model was adjusted to reflect VOC emissions levels in the attainment year without the benefits of the on-road motor vehicle control programs implemented after the base year. Thus, the VMT offset ceiling scenario reflects hypothetical VOC emissions if the State had not put in place any TCSs or TCMs after the base year and if there had been no growth in VMT or vehicle trips between the base year and the attainment year. As shown in Table 5, CARB estimates VMT offset ceiling VOC emissions to be 2.0 tpd in 2023.

The hypothetical growth in emissions due to growth in VMT and trips can be determined from the difference between the VOC emissions estimates under the no action scenario and the corresponding estimate for the VMT offset ceiling scenario. Based on the values in Table 5, the hypothetical growth in emissions due to growth in VMT and trips in the Coachella Valley would have been 0.8 tpd (i.e., 2.8 tpd minus 2.0 tpd). This hypothetical difference establishes the level of emissions caused by growth in VMT that need to be offset by the combination of post-baseline year TCMs and TCSs and any necessary additional TCMs and TCSs.

For the projected actual scenario calculation, the State included the emissions benefits from TCSs and TCMs put in place since the base year.¹¹⁴ In addition to the measures already discussed, a full list of CARB mobile source regulations from 1990 through the Plan's development appears in Attachment A-1 of the VMT Offset Demonstration. While some of these

¹¹³ This estimate included an additional 0.33 tpd based on the sensitivity analysis conducted with the EMFAC2011 and EMFAC2014 models to account for the EMFAC reductions for CARB's Advanced Clean Cars I program, Truck and Bus Regulation, and I/M programs.

¹¹⁴ As described in Section IV.B.2.c of this document, the TCMs are focused in the South Coast Air Basin, which heavily influences air quality in the Coachella Valley due to the downwind transport.

measures were adopted prior to 2002, all or part of their implementation occurred after 2002.

CARB determined the area complied with the VMT Offset Demonstration because actual emissions did not exceed the VMT offset ceiling scenario calculation, in accordance with EPA guidance.¹¹⁵

3. The EPA's Evaluation of the VMT Offset Demonstration

CARB's VMT Offset Demonstration uses a 2002 RFP base year. This is the same year used for the Coachella Valley Severe area VMT offset demonstration for the 1997 ozone NAAQS,¹¹⁶ it corresponds to the Plan's baseline year for the RFP emissions inventory, and we find it appropriate for this demonstration.¹¹⁷ Further, we find CARB's methodology incorporating sensitivity analysis to adjust for the periodic change in emissions control measures and the omission of resting and diurnal emissions appropriate.

As shown in Table 5, the VMT Offset Demonstration projects actual 2023 attainment-year VOC emissions of 1.9 tpd in the Coachella Valley, which is less than the VMT offset ceiling scenario value of 2.0 tpd. Therefore, the VMT Offset Demonstration shows that existing measures are sufficient to offset the increase due solely to VMT and additional trips, consistent with the methodology in the EPA's August 2012 Guidance, and that no new TCMs or TCSs are required for the area. We are proposing to approve the VMT Offset Demonstration.

F. Clean Fuels or Advanced Control Technology for Boilers

1. Statutory and Regulatory Requirements

Section 182(e)(3) of the CAA provides that SIPs for Extreme nonattainment areas require each new, modified, and existing electric utility and industrial and commercial boiler that emits more than 25 tpy of NO_x to either burn as its primary fuel natural gas, methanol, or ethanol (or a

¹¹⁵ EPA, Office of Transportation and Air Quality, "Implementing Clean Air Act Section 182(d)(1)(A): Transportation Control Measures and Transportation Control Strategies to Offset Growth in Emissions Due to Growth in Vehicle Miles Travelled," EPA-420-B-12-053, August 2012.

¹¹⁶ 81 FR 75764, 75779.

¹¹⁷ The 2002 RFP base year is also consistent with the approach described in the 1997 Ozone Implementation Rule – Phase 2. See 70 FR 71612, 71632.

comparably low-polluting fuel), or use advanced control technology, such as catalytic control technologies or other comparably effective control methods.

Additional guidance on this requirement is provided in the General Preamble.¹¹⁸ In the General Preamble, the EPA states that, for the purposes of CAA section 182(a)(3), 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.¹¹⁹ In addition, boilers with rated heat inputs less than 15 million British thermal units (MMBtu) per hour that are oil- or gas-fired may generally be considered de minimis and exempt from these requirements because it is unlikely that they will exceed the 25 tpy NO_x emission limit.¹²⁰

2. Summary of the State's Submission

The Coachella Valley Ozone Plan discusses compliance with the requirements of CAA section 182(e)(3) by reference to SCAQMD Rules 1146 ("Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters") and 1135 ("Emissions of Oxides of Nitrogen from Electricity Generating Facilities").¹²¹ These rules require the best available retrofit control technology (BARCT) for existing boilers. New or modified sources with emissions increases are subject to California best available control technology (BACT) requirements, which are comparable to the federal lowest achievable emissions rate (LAER) requirements for major sources as defined in CAA section 171(3). Accordingly, the Plan concludes that no additional action is needed to satisfy the CAA section 182(e)(3) requirement for the Coachella Valley's reclassification to Extreme.

3. The EPA's Review of the State's Submission

¹¹⁸ 57 FR 13498, 13523.

¹¹⁹ 57 FR 13498, 13523.

¹²⁰ Id at 13524.

¹²¹ Coachella Valley Ozone Plan, p. 6-31.

In our previous evaluation of the 2016 AQMP, which includes a similar documentation of compliance with CAA 182(e)(3), we determined that SCAQMD Rules 1303, 1146, and 2004 satisfy the clean fuel or advanced control technology for boilers requirement in CAA section 182(e)(3) for the South Coast Air Basin.¹²² For similar reasons, we find that the requirements for new, modified, and existing boilers in approved SCAQMD Rules 1303, 1146, and 2004 satisfy the clean fuel or advanced control technology for boilers requirement in CAA section 182(e)(3), and based on this finding, we propose to find the State has demonstrated that these requirements are met for the Coachella Valley for the 1997 ozone NAAQS.

G. Other CAA Requirements

1. Contingency Measures

Under the CAA, ozone nonattainment areas classified under subpart 2 as Serious or above must include in their SIPs contingency measures consistent with sections 172(c)(9) and 182(c)(9). CAA section 172(c)(9) requires states with nonattainment areas to provide for the implementation of specific measures to be undertaken if the area fails to make RFP or to attain the NAAQS by the applicable attainment date. Such measures must be included in the SIP as contingency measures to take effect in any such case without further action by the state or the EPA. CAA section 182(c)(9) requires states to provide contingency measures in the event that an ozone nonattainment area fails to meet any applicable RFP milestone. Contingency measures are additional controls or measures to be implemented in the event an area fails to make RFP or to attain the NAAQS by the attainment date.

In March 2023, the EPA announced a new draft guidance addressing the contingency measures requirement of section 172(c)(9), entitled “DRAFT: Guidance on the Preparation of State Implementation Plan Provisions that Address the Nonattainment Area Contingency Measure Requirements for Ozone and Particulate Matter,” and provided an opportunity for

¹²² 84 FR 28132, 28164.

public comment.¹²³ The principal differences between this draft revised guidance and previous existing guidance on contingency measures relate to the EPA’s recommendations concerning the specific amount of emissions reductions that implementation of contingency measures should achieve, and the timing for when the emissions reductions from the contingency measures should occur.

The Plan explains that the District intends to amend SCAQMD Rule 445, “Wood Burning Devices,” to include potential contingency provisions for Coachella Valley for the 1997 8-hour ozone standards.¹²⁴ To date, the EPA has not received a submittal to address the 1997 ozone contingency measures requirements of CAA sections 172(c)(9) and 182(c)(9) for the Coachella Valley. The EPA is not proposing action on the Coachella Valley contingency measures requirement for the 1997 ozone NAAQS in this rulemaking.

2. CAA Section 185 Fees

Under sections 182(d)(3), (e), and (f) and 185 of the Act, states with ozone nonattainment areas classified as Severe or Extreme are required to submit a revision to the SIP that would require major stationary sources of VOC or NO_x to pay a fee upon a failure to attain by the applicable attainment date. Under CAA section 185, this fee is calculated as \$5,000 in 1990 dollars, adjusted for inflation, for every ton emitted by the source during the calendar year in excess of 80 percent of the source’s actual emissions in the applicable attainment year.¹²⁵

While the EPA has approved SCAQMD Rule 317 into the SIP for the 1-hour ozone standards, the SCAQMD has not submitted a rule to address the requirement of CAA section 185 for the 1997 8-hour ozone standards. We are aware, however, that the SCAQMD is working to create to a rule to address this requirement, SCAQMD Rule 317.1, “Clean Air Act Nonattainment Fees for the 8-Hour Ozone Standards.” The SCAQMD has prepared a draft rule

¹²³ 88 FR 17571 (March 23, 2023).

¹²⁴ Coachella Valley Ozone Plan p. 6-30.

¹²⁵ CAA section 185(a) and (b).

and held a workshop to discuss it on November 7, 2023.¹²⁶ The EPA is not proposing action on the CAA Section 185 fee requirement for the 1997 ozone NAAQS in this rulemaking.

3. New Source Review Rules

Section 182(a)(2)(C) of the CAA requires states to develop SIP revisions containing permit programs for each ozone nonattainment area. These SIP revisions must include requirements for permits in accordance with CAA sections 172(c)(5) and 173 for the construction and operation of each new or modified major stationary source for VOC and NO_x anywhere in the nonattainment area.¹²⁷ In addition, CAA section 182(e)(1) requires the permitting offset ratios for volatile organic compound and NO_x for major sources and modifications in an Extreme nonattainment area to be at least 1.5 to 1, or at least 1.2 to 1 if the plan requires all existing major sources in the nonattainment area to use the best available control technology. SCAQMD Rule 1302, “Definitions,” and Rule 2000, “General” (part of the RECLAIM regulations), have been submitted to address these requirements.¹²⁸ The EPA has not yet acted on this submittal.

4. Clean Fuels for Fleets

Section 182(c)(4)(A) of the CAA requires states to submit SIP revisions to implement the clean-fuel vehicle program for fleets described at CAA section 246 (“Clean Fuels Fleet Program”) in each ozone nonattainment area classified as Serious and above. Section 182(c)(4)(B) of the CAA allows states to opt out of the federal Clean Fuels 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 precursors and toxic air emissions.

In 1994, CARB submitted a SIP revision to the EPA to opt out of the Clean Fuels Fleet Program. The submittal included a demonstration that California’s low-emissions vehicle

¹²⁶ <https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-317-and-317-1>.

¹²⁷ See also CAA section 182(e).

¹²⁸ Letter dated February 12, 2021, from Richard W. Corey, CARB, to Deborah Jordan, EPA Region IX (submitted electronically on February 12, 2021).

program achieved emissions reductions at least as large as would be achieved by the federal program. The EPA approved the SIP revision to opt-out of the federal program on August 27, 1999.¹²⁹

Recent EPA guidance for the 2008 and 2015 ozone standards¹³⁰ identifies several methods to demonstrate compliance with the Clean Fuels Fleet Program requirement. Among them, a state may submit a certification SIP revision if it has “an approved [Clean Fuels Fleet Program] or substitute measure(s) that it is continuing to implement, and the state does not plan to make any changes to the program or substitute measure(s).”¹³¹ Consistent with this guidance, the EPA approved the “California Clean Fuels for Fleets Certification for the 70 ppb (2015) Ozone Standard,” which included Coachella Valley, in a final rule dated May 25, 2023.¹³² However, because the Plan does not contain a certification for the 1997 ozone standards, the EPA is taking no action regarding this requirement as part of this action.

5. Enhanced Monitoring

Section 182(c)(1) of the CAA requires that all ozone nonattainment areas classified as Serious or above implement measures to enhance and improve monitoring for ambient concentrations of ozone, NO_x, and VOC, and to improve monitoring of emissions of NO_x and VOC. The enhanced monitoring network for ozone is referred to as the photochemical assessment monitoring station (PAMS) network. The EPA promulgated final PAMS regulations on February 12, 1993.¹³³

On November 10, 1993, CARB submitted to the EPA a SIP revision addressing the PAMS network for six ozone nonattainment areas in California, including the Southeast Desert, to meet the enhanced monitoring requirements of CAA section 182(c)(1) and the PAMS

¹²⁹ 64 FR 46849 (August 27, 1999).

¹³⁰ EPA, Office of Transportation and Air Quality, “Guidance for Fulfilling the Clean Fuel Fleets Requirement of the Clean Air Act,” EPA-420-B-22-027, June 2022.

¹³¹ *Id.* at 8.

¹³² 88 FR 33830.

¹³³ 58 FR 8452 (February 12, 1993).

regulations.¹³⁴ The EPA determined that the PAMS SIP revision met all applicable requirements for enhanced monitoring and approved the PAMS submittal into the California SIP.¹³⁵

Appendix B, “Enhanced Ozone Monitoring Plan,” of the District’s Five-Year Monitoring Network Assessment, dated June 1, 2020, describes the District’s plan to address the requirements of section 182(c)(1).¹³⁶ The EPA has approved the District’s review, including the Enhanced Ozone Monitoring Plan in a letter dated October 28, 2020.¹³⁷

Prior to 2006, the EPA’s ambient air monitoring regulations in 40 CFR part 58 (“Ambient Air Quality Surveillance”) set forth specific SIP requirements (see former 40 CFR 52.20). In 2006, the EPA significantly revised and reorganized 40 CFR part 58.¹³⁸ Under revised 40 CFR part 58, SIP revisions are no longer required; rather, compliance with EPA monitoring regulations is established through review of required annual monitoring network plans.¹³⁹ Therefore, based on our review and approval of the 2020 Five-Year Network Monitoring Assessment we find the District has adequately addressed the enhanced monitoring requirements under CAA section 182(c)(1) for the Coachella Valley.

6. Enhanced Vehicle Inspection and Maintenance Programs

Section 182(c)(3) of the CAA requires states with ozone nonattainment areas classified as Serious or above to implement an enhanced motor vehicle inspection and maintenance program in those areas. The requirements for those programs are provided in CAA section 182(c)(3) and

¹³⁴ In the designation of the 1997 ozone NAAQS nonattainment areas, the Southeast Desert was split into the Los Angeles and San Bernardino (Western Mojave Desert) and Coachella Valley Nonattainment Areas.

¹³⁵ 82 FR 45191 (September 28, 2017).

¹³⁶ Letter dated June 26, 2020, from Rene Bermudez, SCAQMD, to Jennifer Williams, EPA Region IX, transmitting the District’s Five-Year Monitoring Network Assessment.

¹³⁷ Letter dated October 28, 2020, from Gwen Yoshimura, EPA Region IX, to Matt Miyasato, SCAQMD.

¹³⁸ 71 FR 61236 (October 17, 2006).

¹³⁹ 40 CFR 58.2(b) now provides “The requirements pertaining to provisions for an air quality surveillance system in the SIP are contained in this part.”

40 CFR part 51, subpart S. The EPA approved the State of California's SIP revision addressing this requirement in a final rule dated July 1, 2010.¹⁴⁰

V. Environmental Justice Considerations

We expect that this proposed action, if approved, will generally be neutral or contribute to a reduction in adverse environmental and health impacts on all populations in the Coachella Valley, including people of color and low-income populations in the area. At a minimum, the approved action would not worsen any existing air quality and is expected to ensure the area is meeting requirements to attain air quality standards. Further, there is no information in the record indicating that this action is expected to have disproportionately high or adverse human health or environmental effects on a particular group of people. In responding to public concerns about environmental justice in eastern Coachella Valley, the Plan notes that (1) Assembly Bill 617 funding has reduced pollutant emissions in Eastern Coachella Valley by 63.1 tpy of NO_x, 7.5 tpy of VOC, and 5.3 tpy of diesel particulate matter,¹⁴¹ and (2) the SCAQMD has provided \$966,667 in energy efficiency upgrades, reducing energy costs for homes within designated environmental justice areas of Indio and Eastern Coachella Valley.¹⁴² The 2016 AQMP also identifies an Environmental Justice Advisory Group established to “advise and assist SCAQMD in protecting and improving public health in SCAQMD’s most impacted communities through the reduction and prevention of air pollution.”¹⁴³

VI. The EPA’s Proposed Action and Public Comment

For the reasons discussed in this document, the EPA is proposing to approve the California’s SIP submittal for the Coachella Valley addressing the Extreme nonattainment areas for the 1997 ozone NAAQS. The EPA is proposing to approve the following elements of

¹⁴⁰ 75 FR 38023.

¹⁴¹ Coachella Valley Ozone Plan, p. 9-8. SCAQMD’s website identifies Assembly Bill 617 Community Air Initiatives as “community based efforts that focus on improving air quality and public health in environmental justice communities.” See <http://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134>.

¹⁴² Id.

¹⁴³ 2016 AQMP p. 9-7.

SCAQMD's "Final Coachella Valley Extreme Area Plan for 1997 8 Hour Ozone Standard,"

dated December 2020, under CAA section 110(k)(3):

1. The RACM demonstration as meeting the requirements of CAA section 172(c)(1) and 40 CFR 51.1105(a)(1) and 51.1100(o)(17);
2. The ROP and RFP demonstrations as meeting the requirements of CAA sections 172(c)(2) and 182(c)(2)(B) and 40 CFR 51.1105(a)(1) and 51.1100(o)(4); and
3. The attainment demonstration as meeting the requirements of CAA section 182(c)(2)(A) and 40 CFR 51.1105(a)(1) and 51.1100(o)(12).

The EPA is also proposing to approve CARB's "2020 Coachella Valley Vehicle Miles Traveled Emissions Offset Demonstration," release date January 22, 2022. The demonstration 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 of CAA section 182(d)(1)(A) and 40 CFR 51.1105(a)(1) and 51.1100(o)(10). Additionally, we are proposing to find that the State has satisfied the clean fuel or advanced control technology for boilers requirement in CAA section 182(e)(3) for the Coachella Valley for the 1997 ozone NAAQS. The EPA is soliciting public comments on the issues discussed in this document. We will accept comments from the public on this action for the next 30 days. We will consider these comments before taking final action.

VII. Statutory and Executive Order Reviews

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

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993), 13563 (76 FR 3821, January 21, 2011) and 14094 (88 FR 21879, April 11, 2023);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it proposes to approve a state program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed action does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

Furthermore, Executive Order 12898, “Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations” (59 FR 7629, February 16, 1994),

directs Federal agencies to identify and address “disproportionately high and adverse human health or environmental effects” of their actions on minority populations and low-income populations to the greatest extent practicable and permitted by law. The EPA defines environmental justice (EJ) as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” The EPA further defines the term fair treatment to mean that “no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.”

The State did not evaluate environmental justice considerations as part of its SIP submittal; the CAA and applicable implementing regulations neither prohibit nor require such an evaluation. However, as described in Section IV of this document, the District has taken measures to address environmental justice concerns within the Coachella Valley. The EPA did not perform an EJ analysis and did not consider EJ in this action. Due to the nature of this proposed action, if finalized, this action is expected to have a neutral to positive impact on the air quality of Coachella Valley. Consideration of EJ is not required as part of this action, and there is no information in the record inconsistent with the stated goal of Executive Order 12898, to achieve environmental justice for people of color, low-income populations, and Indigenous peoples.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental regulations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: **April 9, 2024.**

Martha Guzman Aceves,
Regional Administrator,

Region IX.

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