

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA–R09–OAR–2021–0135; FRL–9538–02–R9]

### Air Quality Implementation Plans; California; San Diego County; 2008 and 2015 8-Hour Ozone Nonattainment Area Requirements

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

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve portions of two state implementation plan (SIP) revisions submitted by the State of California to meet Clean Air Act requirements for the 2008 8-hour ozone national ambient air quality standards (NAAQS or “standards”) and the 2015 8-hour ozone NAAQS in the San Diego County ozone nonattainment area (“San Diego County area” or “area”). The first SIP revision, “2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County” (“2020 San Diego County Ozone SIP” or “2020 Plan”), addresses most of the SIP requirements for the area. The second SIP revision, referred to as the “Smog Check Certification,” supplements the motor vehicle inspection and maintenance program portion of the 2020 Plan. The EPA is proposing to approve the 2020 Plan, and the San Diego County portion of the Smog Check Certification, as meeting all the applicable ozone nonattainment area requirements for the 2008 and 2015 8-hour ozone NAAQS addressed by the plan except for the emissions statement requirement that the EPA previously found to have been met and the contingency measure requirements, for which the EPA is deferring action.

**DATES:** Comments must be received on or before January 18, 2024.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA–R09–OAR–2021–0135 at <https://www.regulations.gov>. For comments submitted at [Regulations.gov](https://www.regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from [Regulations.gov](https://www.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 disabilities 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:** John J. Kelly, Air Planning Office (AIR–2–1), EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105. By phone at (415) 947–4151, or by email at [kelly.johnj@epa.gov](mailto:kelly.johnj@epa.gov).

#### SUPPLEMENTARY INFORMATION:

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

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## I. Regulatory Context

### A. Ozone Standards, Area Designations, and SIPs

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

Scientific evidence indicates that adverse public health effects occur following exposure to ozone, particularly in children and adults with lung disease. Breathing air containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma or other lung diseases.<sup>2</sup>

Under section 109 of the Clean Air Act (CAA or “the Act”), the EPA promulgates NAAQS for pervasive air pollutants, such as ozone, to protect public health and welfare. Under CAA section 110, following promulgation of a new or revised NAAQS, states are required to adopt and submit plans that provide for implementation, maintenance, and enforcement of the NAAQS (referred to as State Implementation Plans or SIPs). Under CAA section 107(d), the EPA is required to designate areas throughout the nation as either attaining or not attaining the NAAQS, and states with designated nonattainment areas are required to submit SIP revisions to, among other things, provide for attainment as expeditiously as practicable but not later than the applicable attainment dates.

In 1979, the EPA established primary and secondary NAAQS for ozone at 0.12 parts per million (ppm) averaged over a 1-hour period (“1979 ozone NAAQS”).<sup>3</sup> In 1997, the EPA revised the primary

<sup>1</sup> The State of California refers to reactive organic gases (ROG) 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 the sake of simplicity, we refer to this set of gases as VOC in this proposed rule.

<sup>2</sup> “Fact Sheet—2008 Final Revisions to the National Ambient Air Quality Standards for Ozone,” dated March 2008.

<sup>3</sup> 44 FR 8202 (February 8, 1979). When the CAA was amended in 1990, each area of the country that was designated nonattainment for the 1979 ozone NAAQS, including the San Diego area, was classified by operation of law as nonattainment and classified as Marginal, Moderate, Serious, Severe, or Extreme depending on the severity of the area’s air quality problem. The EPA redesignated the San Diego County area from Serious nonattainment to attainment for the 1979 ozone NAAQS, effective July 28, 2003. 68 FR 37976 (June 26, 2003).

and secondary standards for ozone in the ambient air to 0.08 ppm averaged over an 8-hour period (“1997 ozone NAAQS”).<sup>4</sup>

In 2008, the EPA lowered the 8-hour ozone NAAQS to 0.075 ppm (“2008 ozone NAAQS”).<sup>5</sup> Then in 2015, the EPA further lowered the 8-hour ozone NAAQS to 0.070 ppm (“2015 ozone NAAQS”).<sup>6</sup> On December 31, 2020, the EPA finalized its most recent periodic review of the ozone NAAQS, retaining the form and level of the standards.<sup>7</sup> The EPA has revoked both the 1979 ozone NAAQS and the 1997 ozone NAAQS but not the 2008 ozone NAAQS.<sup>8</sup>

In 2012, the EPA designated San Diego County as nonattainment for the 2008 ozone NAAQS and classified the area as “Marginal.”<sup>9</sup> Areas classified as Marginal must attain the NAAQS within three years of the effective date of the nonattainment designation.<sup>10</sup> Following this initial classification as Marginal, the EPA found in 2016 that the area did not attain the 2008 ozone standards by the Marginal attainment deadline of July 20, 2015.<sup>11</sup> As a result of our finding, the area was reclassified by operation of law to Moderate nonattainment.<sup>12</sup> Moderate nonattainment areas have six years to attain the standard. Following the Moderate attainment deadline of July 20, 2018, the EPA found that the area did not attain the 2008 ozone standards.<sup>13</sup> As a result of our finding, the area was reclassified by operation of law to Serious nonattainment, with a Serious attainment deadline of July 20, 2021, nine years after the effective date

of designation as a nonattainment area for the 2008 ozone NAAQS. In response to a letter to the EPA dated January 8, 2021 from the California Air Resources Board (CARB), the EPA reclassified the area to Severe for the 2008 ozone NAAQS.<sup>14</sup> In the same letter, CARB requested that the EPA also reclassify the area as Severe for the 2015 ozone NAAQS. The EPA’s initial designation for the San Diego County area for the 2015 ozone NAAQS was nonattainment, with a Moderate classification.<sup>15</sup> The San Diego County area is now classified as Severe for both the 2008 and the 2015 ozone NAAQS.<sup>16</sup>

Designations of nonattainment for a given NAAQS trigger requirements under the CAA to prepare and submit SIP revisions. The SIP revision that is the subject of this proposed action addresses the Severe nonattainment area requirements that apply to the San Diego County area for the 2008 and the 2015 ozone NAAQS.

Under California law, CARB is the state agency that is responsible for the adoption and submission to the EPA of California SIPs and SIP revisions, and it has broad authority to establish emissions standards and other requirements for mobile sources and certain area sources, such as consumer products. Local and regional air pollution control districts in California are responsible for the regulation of stationary sources and are generally responsible for the development of regional air quality management plans (“plans”). In the San Diego County area, the San Diego County Air Pollution Control District (SDCAPCD or “District”) develops and adopts plans to address CAA planning requirements applicable to that area. Such plans are then submitted to CARB for adoption and submittal to the EPA as revisions to the California SIP.

#### *B. The San Diego County Ozone Nonattainment Area*

The San Diego County area is located in the southwestern-most portion of the State of California, and its boundaries

generally align with those of San Diego County. For a precise description of the geographic boundaries of the San Diego County area for both the 2008 and 2015 ozone NAAQS, see 40 CFR 81.305.

Prior plans and state control measures developed by the District and CARB have produced significant emissions reductions over the years and improved air quality in the area. For instance, the 8-hour ozone design value for the San Diego County area decreased from 0.095 ppm to 0.079 ppm from 2002 to 2022,<sup>17</sup> despite increases in population and vehicular activity.

Under certain weather conditions, the San Diego County area is downwind from the Los Angeles-South Coast Air Basin (“South Coast”) and, under certain other weather conditions, from Mexico, and is subject to transport of ozone from those areas. The South Coast is regulated by the South Coast Air Quality Management District (SCAQMD). The 2020 Plan describes ozone transport from these areas as follows:

... air pollution from both regions significantly contribute to ozone levels in the San Diego region under certain weather conditions. This impact is acknowledged in State documentation and regulation. Importantly . . . SCAQMD has implemented effective emissions control programs, resulting in a trend of emission reductions and air quality improvements in the South Coast region. Though the region is designated as an Extreme Nonattainment Area for the 2008 and 2015 ozone NAAQS, SCAQMD predicts continued ozone reductions through at least 2031 as shown in their SIP for the 2008 ozone NAAQS. In turn, air pollution transported to San Diego County is expected to decrease as a result of their actions.<sup>18</sup>

Because of the transport from the South Coast into the San Diego County area, continued progress in the South Coast towards meeting the 2008 and 2015 ozone NAAQS is expected to help the San Diego County area attain these ozone NAAQS.

#### *C. Clean Air Act and Regulatory Requirements for 2008 and 2015 Ozone Nonattainment Area SIPs*

States must implement the 2008 and 2015 ozone NAAQS under title I, part D

<sup>4</sup> 62 FR 38856 (July 18, 1997). In 2004, the EPA designated areas of the country with respect to the 1997 ozone NAAQS. See 69 FR 23858 (April 30, 2004). The EPA redesignated the San Diego County area from Moderate nonattainment to attainment for the 1997 ozone NAAQS, effective July 5, 2013. 78 FR 33230 (June 4, 2013).

<sup>5</sup> 73 FR 16436 (March 27, 2008).

<sup>6</sup> 80 FR 65292 (October 26, 2015).

<sup>7</sup> 85 FR 87256. The SIP revision that is the subject of this proposed action relates to the requirements for the 2008 and 2015 ozone standards.

<sup>8</sup> 40 CFR 50.9(b) and 40 CFR 50.10(c).

<sup>9</sup> 77 FR 30087 (May 21, 2012), effective July 20, 2012.

<sup>10</sup> CAA section 181(a)(1); 40 CFR 51.1102 and 51.1103(a).

<sup>11</sup> 81 FR 26697 (May 4, 2016).

<sup>12</sup> The State of California submitted the San Diego County area’s 2016 Moderate ozone attainment plan and the 2016 Moderate ozone RACT demonstration to the EPA as a SIP revision on April 12, 2017. The State withdrew the 2016 Moderate ozone attainment plan by letter dated December 16, 2021, following submittal of the 2020 plan and the EPA’s grant of the State’s request to reclassify San Diego County to Severe for the 2008 ozone NAAQS. The EPA approved the 2016 Moderate ozone RACT demonstration at 85 FR 77996 (December 3, 2020), 87 FR 38665 (June 29, 2022) and 88 FR 2538 (January 17, 2023).

<sup>13</sup> 84 FR 44238 (August 23, 2019).

<sup>14</sup> Letter dated January 8, 2021 from Richard Corey, Executive Officer, California Air Resources Board, to John Busterud, Regional Administrator, U.S. EPA Region IX; 86 FR 29522 (June 2, 2021), effective July 2, 2021.

<sup>15</sup> 83 FR 25776 (June 4, 2018). Severe areas must attain the standard as expeditiously as practicable, but not later than 15 years after the effective date of designation. For the 2008 ozone NAAQS, the Severe attainment deadline is July 20, 2027. However, note that for attainment modeling purposes we refer to the attainment year as 2026. For the 2015 ozone NAAQS, the Severe attainment deadline is August 3, 2033, with a 2032 attainment year.

<sup>16</sup> 86 FR 29522 (June 2, 2021), effective July 2, 2021.

<sup>17</sup> Three design value reports (EPA, Air Quality Design Value Report, July 12, 2011; San Diego 2008 Ozone Trends Report, U.S. EPA Air Quality System, May 8, 2023; and San Diego 2015 Ozone Trends Report, U.S. EPA Air Quality System, May 8, 2023), are included in the docket for this action. For the 2008 and 2015 ozone NAAQS, the design value at any given monitoring site is the 3-year average of the annual fourth highest daily maximum 8-hour average ambient air quality ozone concentration. The maximum design value among the various ozone monitoring sites is the design value for the area.

<sup>18</sup> 2020 Plan, p. 13.

of the CAA, including sections 171–179B of subpart 1 (“Nonattainment Areas in General”) and sections 181–185 of subpart 2 (“Additional Provisions for Ozone Nonattainment Areas”). To assist states in developing effective plans to address ozone nonattainment problems, in 2015, the EPA issued a SIP Requirements Rule (SRR) that addresses implementation of various aspects of the 2008 ozone NAAQS (“2008 Ozone SRR”), including attainment dates, requirements for emissions inventories, attainment demonstrations, and reasonable further progress (RFP) demonstrations, among other SIP elements. The 2008 Ozone SRR also addresses the transition from the 1997 ozone NAAQS to the 2008 ozone NAAQS and associated anti-backsliding requirements.<sup>19</sup> In 2018, the EPA also issued an SRR for the 2015 ozone NAAQS (“2015 Ozone SRR”) that addresses implementation of the 2015 standards.<sup>20</sup> The regulatory requirements of the 2008 Ozone SRR are codified at 40 CFR part 51, subpart AA; those for the 2015 Ozone SRR are codified in 40 CFR part 51, subpart CC. We discuss the CAA and regulatory planning requirements for the elements of 2008 and 2015 ozone plans relevant to this proposed action in more detail in Section III of this document.

## II. Submission From the State of California To Address Ozone Requirements in San Diego County

### A. Summary of State Submissions

#### 1. SDCAPCD’s 2020 Attainment Plan

On January 12, 2021, CARB submitted the 2020 Plan to the EPA as a revision to the California SIP.<sup>21</sup> The 2020 Plan addresses many of the nonattainment area requirements for the San Diego County area for both the 2008 and the 2015 8-hour ozone NAAQS. In this document, we are proposing action on the 2020 Plan that addresses both the 2008 and 2015 8-hour ozone NAAQS for the San Diego County area.

The 2020 Plan SIP submittal includes the various sections and attachments of the plan, plus the District’s resolution of approval for the plan (District Resolution 20–166) and CARB’s resolution of adoption of the plan as a revision to the California SIP (CARB

Resolution 20–29).<sup>22</sup> The 2020 Plan includes a District commitment to achieve additional emissions reductions beyond those expected to occur from already-implemented control measures and relies on a similar commitment by CARB. More specifically, the 2020 Plan includes a commitment by the District to achieve an additional 1.7 tons per day (tpd) reduction in NO<sub>x</sub> by 2032<sup>23</sup> and relies on CARB’s commitment to achieve aggregate emissions reductions in San Diego County of 4 tpd of NO<sub>x</sub> by 2032.<sup>24</sup> Both commitments are part of the 2020 Plan’s attainment demonstration for the 2015 ozone NAAQS. With respect to both the 2008 and the 2015 ozone NAAQS, the 2020 Plan addresses the CAA requirements for emissions inventories, air quality modeling demonstrating attainment, reasonably available control measures (RACM), RFP, transportation control strategies and measures, new source review (NSR), contingency measures for failure to make RFP or to timely attain the relevant standards, and motor vehicle inspection and maintenance (I/M) programs (also referred to as “smog check” programs), among other requirements. The 2020 Plan also addresses the emissions statement requirement, and in separate action, the EPA approved the emissions statement portion of the 2020 Plan as meeting the applicable requirements for emissions statements for the 2008 and 2015 ozone NAAQS.<sup>25</sup>

The 2020 Plan is organized into an executive summary, five sections, and attachments lettered A through Q. Section 1, “Introduction and Overview,” introduces the 2020 Plan, including its purpose, the two ozone NAAQS it addresses, current air quality in the area in comparison with those NAAQS, historical air quality progress in San Diego County, and the District’s approach to air quality planning. Section 2, “General Attainment Plan Requirements,” addresses CAA requirements that apply to the area as nonattainment for both the 2008 and the 2015 ozone NAAQS. Section 3, “2008 Eight Hour Ozone NAAQS Attainment Plan Requirements,” addresses CAA requirements that apply to the area as nonattainment specifically for the 2008 ozone NAAQS, including anti-backsliding requirements for the revoked 1979 and 1997 ozone standards.

Section 4, “2015 Eight Hour Ozone NAAQS Attainment Plan Requirements,” addresses CAA requirements that apply to the area as nonattainment specifically for the 2015 ozone NAAQS, including anti-backsliding requirements for revoked standards. Section 5, “Conclusions,” presents the District’s conclusions regarding whether the 2020 Plan meets applicable Clean Air Act requirements.

The 2020 Plan also includes technical attachments:

- Attachment A (“Emissions Inventories and Documentation for Baseline, RFP, and Attainment Years”) presents tables, analysis, and documentation for the emissions inventories included in the plan.
- Attachment B (“Planned Military Projects Subject to General Conformity”) contains annual data compiled by the United States Marine Corps (USMC) and Department of the Navy (DoN) for emissions changes resulting from USMC and DoN projects out to year 2037, for the purpose of demonstrating general conformity for USMC and DoN facilities in the area.
- Attachment C (“Planned San Diego International Airport Projects Subject to General Conformity”) is a report that provides an emissions inventory for the San Diego International Airport, for the purpose of demonstrating general conformity for the airport.
- Attachment D (“CARB Control Measures, 1985 to 2019”) is a listing of CARB control measures from 1985 to 2019.
- Attachment E (“CARB Analyses of Key Mobile Source Regulations and Programs Providing Emission Reductions”) describes CARB’s mobile source regulations and programs that provide emissions reductions in the San Diego County area.
- Attachment F (“Pre-Baseline Banked Emission Reduction Credits”) describes emission reduction credits that were banked before the baseline year.
- Attachment G (“Analyses of Potential Additional Stationary Source Control Measures”) provides the District’s analysis of the feasibility of additional stationary source control measures that could be pursued in the area.
- Attachment H (“Implementation Status of Transportation Control Measures”) provides the implementation status of transportation control measures by the San Diego Association of Governments (SANDAG) and other transportation agencies.
- Attachment I (“CARB Analyses of Potential Additional Mobile Source and Consumer Products Control Measures”)

<sup>19</sup> 80 FR 12264 (March 6, 2015). Anti-backsliding requirements are the provisions applicable to revoked NAAQS (including the 1979 1-hour ozone NAAQS and the 1997 ozone NAAQS).

<sup>20</sup> 83 FR 62998 (December 6, 2018).

<sup>21</sup> Letter (with enclosures) dated January 8, 2021, from Richard Corey, Executive Officer, CARB, to John Busterud, Regional Administrator, EPA Region IX (submitted electronically January 12, 2021).

<sup>22</sup> SDCAPCD Board Resolution 20–166, October 14, 2020; CARB Board Resolution 20–29, Proposed San Diego 8-Hour Ozone State Implementation Plan Submittal, November 19, 2020 (“CARB Board Resolution 20–29”).

<sup>23</sup> 2020 Plan, at 58, 81–82.

<sup>24</sup> CARB Board Resolution 20–29, at 6.

<sup>25</sup> 87 FR 45657 (July 29, 2022).

analyzes the potential for further mobile source and consumer products controls in the area.

- Attachment J (“Calculation of Cumulative Potential Emission Reductions for Possible Reasonably Available Control Measures (RACM)”) calculates the cumulative potential emissions reductions in the area in support of the plan’s RACM demonstration.

- Attachment K (“Modeling Protocol & Attainment Demonstration for the 2020 San Diego Ozone SIP”) provides the modeling protocol and attainment demonstration for the San Diego County area as Severe nonattainment for both the 2008 and the 2015 ozone NAAQS.

- Attachment L (“Modeling Emission Inventory for the Ozone State Implementation Plan in San Diego County”) describes the modeled or “gridded” emissions inventories for the area, in support of the area’s two modeled attainment demonstrations.

- Attachment M (“Weight of Evidence Demonstration for San Diego County”) provides a weight-of-evidence demonstration for the area, in support of the area’s modeled attainment demonstrations.

- Attachment N (“VMT Offset Demonstration for San Diego County”) provides the area’s VMT offset demonstration.

- Attachment O (“Contingency Measures for San Diego County”) represents the District’s assessment of compliance with the contingency measure requirements for the area.

- Attachment P (“Federal Clean Air Act Requirements and References in Attainment Plan”) provides a summary of CAA requirements that apply to the area with specific citations to locations in the plan that address those requirements.

- Attachment Q (“Endnotes”) contains the text of all endnotes found in the plan.

Attainment of the 2008 and the 2015 ozone NAAQS in the San Diego County area is dependent on emissions reductions occurring in the adjacent South Coast nonattainment area. The 2016 South Coast Ozone SIP documents baseline emissions reductions from already-adopted control measures and provides for new emissions reductions to be achieved through fulfillment of SCAQMD and CARB commitments for further reductions, and through new technology measures.<sup>26</sup> More specifically, as discussed in Section

III.D, “Attainment Demonstration,” of the EPA’s proposed approval of the 2016 South Coast Ozone SIP,<sup>27</sup> the ozone attainment demonstrations for South Coast for the 1997 and 2008 ozone NAAQS include emissions reduction commitments made by the SCAQMD in the 2016 AQMP and by CARB in the “Revised Proposed 2016 State Strategy for the State Implementation Plan” (“2016 State Strategy”).

The 2016 State Strategy focuses on two areas: the South Coast and the San Joaquin Valley. Although it did not include specific emissions reduction commitments for San Diego County, CARB states that, “[s]hould additional areas require emission reductions to meet the current ozone and PM<sub>2.5</sub> standards, ARB will quantify area and year specific reductions as part of individual attainment plans.”<sup>28</sup> The 2020 Plan for the 2015 ozone NAAQS relies on CARB’s commitment to achieve 4 tpd of NO<sub>x</sub> emissions reductions in 2032 from mobile sources to demonstrate attainment of this standard in San Diego County.<sup>29</sup>

## 2. Smog Check Certification

On April 26, 2023, CARB submitted the “California Smog Check Performance Standard Modeling and Program Certification for the 70 Parts Per Billion (ppb) 8-Hour Ozone Standard” (“Smog Check Certification”) to supplement the motor vehicle I/M portion of the 2020 Plan.<sup>30</sup> The Smog Check Certification includes CARB’s evaluation of the California Smog Check program for compliance with the applicable I/M performance standard as defined in EPA’s regulations for certain nonattainment areas for the 2008 and 2015 ozone NAAQS, including San Diego County.

CARB’s SIP submittal package for the Smog Check Certification includes CARB Resolution 23–9, through which CARB adopted the Smog Check Certification as part of the California SIP,<sup>31</sup> public notice of CARB’s hearing on the proposed SIP revision, public comments and responses, and

MOVES<sup>32</sup> input and output data sheets. In this document, we are proposing action on the San Diego County portion of the Smog Check Certification as a supplement to the vehicle I/M portion of the 2020 Plan.

## B. Clean Air Act Procedural Requirements for Adoption and Submission of SIP Revisions

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

Both the District and CARB have satisfied the applicable statutory and regulatory requirements for reasonable public notice and hearing prior to the adoption and submittal of the 2020 Plan. The District held two public webinars, one in July and another in August, 2020, and held a hearing on October 14, 2020, to discuss the plan and solicit public input.<sup>33</sup> On September 14, 2020, the District published a notice in a local newspaper of the public hearing to be held on October 14, 2020, to consider approval of the 2020 Plan.<sup>34</sup> On October 14, 2020, the District held the public hearing, and on that same date, through Resolution 20–166, the District board approved the 2020 Plan and directed the Air Pollution Control Officer to forward its resolution and the 2020 Plan to CARB for submittal to the EPA for inclusion in the California SIP.

Upon receipt of the 2020 Plan from the District, CARB also provided public notice and opportunity for public comment on the plan. On October 16, 2020, CARB released for public review its staff report for the 2020 Plan (“CARB Staff Report”)<sup>35</sup> and published a notice of public meeting to be held on November 19, 2020, to consider

<sup>32</sup> MOVES is the acronym for the EPA’s Motor Vehicle Emission Simulator model.

<sup>33</sup> Letter dated October 20, 2020, from Robert Reider, Interim Director, SDCAPCD, to Richard Corey, CARB Executive Officer. See the letter’s response to comments document regarding the two webinars and its “Minute Order” document regarding the public hearing.

<sup>34</sup> Id. See the October 20, 2020 letter’s proof of publication document regarding public notice for the October 14, 2020 public hearing.

<sup>35</sup> CARB Review of the 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County, Release Date: October 16, 2020.

<sup>26</sup> 84 FR 28132 (June 17, 2019), at 28134–28134, tables 10 and 11. The EPA finalized its approval of the 2016 South Coast Ozone SIP at 84 FR 52005 (October 1, 2019).

<sup>27</sup> 84 FR 28132, 28143–28157 (June 17, 2019).

<sup>28</sup> 2016 State Strategy, 35.

<sup>29</sup> CARB Review of the 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County, Release Date: October 16, 2020, at 11; CARB Board Resolution 20–29, at 6.

<sup>30</sup> Letter (with enclosures) dated April 26, 2023, from Steven S. Cliff, Ph.D., Executive Officer, CARB, to Martha Guzman, Regional Administrator, EPA Region IX (submitted electronically April 26, 2023).

<sup>31</sup> CARB Board Resolution 23–9, March 23, 2023.

adoption of the 2020 Plan as a revision to the California SIP.<sup>36</sup> On November 19, 2020, CARB held the hearing and adopted the 2020 Plan as a revision to the California SIP and directed the Executive Officer to submit the 2020 Plan to the EPA for approval into the California SIP.<sup>37</sup> On January 12, 2021, the Executive Officer of CARB submitted the 2020 Plan to the EPA. Six months after submittal, on July 12, 2021, the 2020 Plan became complete by operation of law.<sup>38</sup>

CARB has also satisfied the applicable statutory and regulatory requirements for reasonable public notice and hearing prior to the adoption and submittal of the Smog Check Certification. On February 10, 2023, CARB released for public review the draft Smog Check Certification and published a notice of public meeting to be held on March 23, 2023, to consider adoption of the Smog Check Certification as a revision to the California SIP.<sup>39</sup> On March 23, 2023, CARB held the hearing and adopted the Smog Check Certification as a revision to the California SIP and directed the Executive Officer to submit the Smog Check Certification to the EPA for approval into the California SIP.<sup>40</sup> On April 26, 2023, the Executive Officer of CARB submitted the Smog Check Certification to the EPA.

Based on information provided in the SIP revisions submitted on January 12, 2021 and April 26, 2023, and summarized in Section II.A this document, the EPA has determined that all hearings were properly noticed and that a reasonable opportunity to submit written comments was provided. Therefore, we find that the submittal of the 2020 Plan and the Smog Check Certification meets the procedural requirements for public notice and hearing in CAA sections 110(a) and 110(l) and 40 CFR 51.102.

### III. Evaluation of the 2020 San Diego County Ozone SIP

#### A. Emissions Inventories

##### 1. Statutory and Regulatory Requirements

CAA sections 172(c)(3) and 182(a)(1) require states to submit for each ozone

nonattainment area a “base year inventory” that is a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in the area. In addition, the 2008 Ozone SRR and the 2015 Ozone SRR require that the inventory year be selected consistent with the baseline year for the RFP demonstration, which is the most recent calendar year for which a complete triennial inventory is required to be submitted to the EPA under the Air Emissions Reporting Requirements (AERR) at the time of designation for the ozone NAAQS.<sup>41</sup> For the 2008 ozone NAAQS, the baseline year for the RFP demonstration is 2011, and for the 2015 ozone NAAQS, the base year for the RFP demonstration is 2017.

The EPA has issued guidance on the development of base year and future year emissions inventories for 8-hour ozone and other pollutants.<sup>42</sup> Emissions inventories for ozone must include emissions of VOC and NO<sub>x</sub> and represent emissions for a typical ozone season weekday.<sup>43</sup> States should include documentation explaining how the emissions data were calculated. In estimating mobile source emissions, states should use the latest emissions models and planning assumptions available at the time the SIP is developed.<sup>44</sup>

Future baseline emissions inventories must reflect the most recent population, employment, travel, and congestion estimates for the area. In this context, “baseline” emissions inventories refer to emissions estimates for a given year and area that reflect rules and regulations and other measures that are already adopted. Future baseline emissions inventories are necessary to show the projected effectiveness of SIP control measures. Both the base year and future year inventories are necessary for photochemical modeling to demonstrate attainment.

<sup>41</sup> 2008 Ozone SRR at 40 CFR 51.1115(a) and 40 CFR 51.1110(b), 2015 Ozone SRR at 40 CFR 51.1315(a) and 40 CFR 51.1310(b), and the Air Emissions Reporting Requirements at 40 CFR part 51, subpart A.

<sup>42</sup> “Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations,” EPA-454/B-17-002, May 2017, available in the docket for this action and at <https://www.epa.gov/air-emissions-inventories/air-emissions-inventory-guidance-implementation-ozone-and-particulate>.

<sup>43</sup> For 2008 ozone, 40 CFR 51.1115(a) and (c), and 40 CFR 51.1100(bb) and (cc). For 2015 ozone, 40 CFR 51.1315(a) and (c), and 40 CFR 51.1300(p) and (q).

<sup>44</sup> 80 FR 12264, 12290 (March 6, 2015); 83 FR 62998, 63022 (December 6, 2018).

##### 2. Summary of State’s Submission

The 2020 Plan includes three sets of base year and future year average summer day baseline inventories for NO<sub>x</sub> and VOC for the San Diego County area, for both the 2008 and 2015 ozone NAAQS.<sup>45</sup> One set of base year and future year baseline emissions inventories reflects emissions within the San Diego County area and includes marine emissions out to 100 nautical miles (NM) from the coast. A second set of emissions inventories adds emissions from the South Coast Air Basin to those generated within the San Diego County area (plus marine emissions out to 100 NM from the coast) to produce combined inventories. A third set of emissions inventories reflects San Diego County area emissions including marine emissions but only out to three NM from the coast. All three sets of inventories include the years 2011, 2017, 2020, 2023, 2026, 2029 and 2032.

Documentation for the inventories is found in Sections 3 and 4 of the 2020 Plan, addressing the 2008 and 2015 ozone NAAQS, respectively, as well as in the Plan’s Attachment A. Because ozone levels in the area are typically highest during the summer months, the inventories provided in the 2020 Plan represent average summer day emissions from May through October. The inventories in the 2020 Plan reflect District rules adopted through the end of calendar year 2019 and CARB rules adopted through the end of calendar year 2017. For estimating on-road motor vehicle emissions, these inventories use EMFAC2017, the EPA-approved version of California’s mobile source emissions model available at the time the 2020 Plan was developed.<sup>46</sup>

The VOC and NO<sub>x</sub> emissions estimates are grouped into two general categories, stationary sources and mobile sources. Stationary sources are further divided into “point” and “area” sources. Point sources typically refer to stationary sources that are permitted facilities and have one or more identified and fixed pieces of equipment and emissions points. Area sources consist of widespread and numerous smaller emissions sources, such as consumer products, fireplaces and agricultural burning.<sup>47</sup> The mobile

<sup>45</sup> 2020 Plan, Attachment A.

<sup>46</sup> 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*.

<sup>47</sup> 2020 Plan, p. A-30.

<sup>36</sup> Notice of Public Meeting to Consider Approval of the Proposed San Diego 8-Hour Ozone State Implementation Plan Submittal, signed by Richard Corey, Executive Officer, CARB, October 16, 2020.

<sup>37</sup> CARB Resolution 20–29, 6.

<sup>38</sup> CAA section 110(k)(1)(B).

<sup>39</sup> Notice of Public Meeting to Consider the Proposed California Smog Check Performance Standard Modeling and Program Certification for the 70 parts per billion 8-hour Ozone Standard, signed by Steven S. Cliff, Ph.D., Executive Officer, CARB, February 10, 2023.

<sup>40</sup> CARB Resolution 23–9, 6.

sources category is divided into two major subcategories, “on-road” and “off-road” mobile sources. On-road mobile sources include light-duty automobiles, light-, medium-, and heavy-duty trucks, and motorcycles. Off-road mobile sources include aircraft, locomotives, construction equipment, mobile equipment, and recreational vehicles.

Point source (also referred to as “stationary source”) emissions for the 2011 and 2017 base year emissions inventories are calculated using reported data from facilities using the District’s annual emissions reporting program, which applies under District Rule 19.3 to stationary sources in the San Diego County area that emit 25 tons per year (tpy) or more of VOC or NO<sub>x</sub>. Area sources include smaller emissions sources distributed across the nonattainment area. CARB and the District estimate emissions for numerous area source categories using established inventory methods, including publicly available emissions factors and activity information. Specific estimates are included in the 2020 Plan for area source categories: consumer products, architectural coatings and related process solvent use, pesticides and fertilizers, asphalt paving and roofing, residential fuel combustion, farming operations, fires, managed burning and disposal, and cooking.

On-road emissions inventories in the 2020 Plan are calculated using CARB’s EMFAC2017 model and the travel activity data provided by SANDAG in SANDAG’s 2018 adopted Regional Transportation Improvement Program.<sup>48</sup> CARB provided emissions inventories for off-road equipment, including construction and mining equipment, industrial and commercial equipment, lawn and garden equipment, agricultural equipment, ocean-going vessels, commercial harbor craft, locomotives, cargo handling equipment, pleasure craft, and recreational vehicles. CARB used several models to estimate emissions for off-road equipment categories.<sup>49</sup> Aircraft emissions inventories are developed in conjunction with the airports in the region. In particular, an emissions analysis was included in the 2020 Plan for the San Diego International Airport.<sup>50</sup>

The 2020 Plan distinguishes between emissions sources within San Diego County, which includes coastal

emissions (including marine vessel emissions) within three NM of the coastline, and emissions sources operating outside the county but within 100 NM of the coastline. The base year emissions inventory reflects only those emissions sources that operate within the nonattainment area (*i.e.*, within three NM of the coastline), but offshore emissions sources affect ozone concentrations in the nonattainment area and thus are included in the emissions inventories used for the attainment demonstrations in the 2020 Plan.

The calendar year 2017 is the base year in the 2020 Plan for both the 2008 and 2015 ozone NAAQS because 2017 the most recent calendar year for which a complete triennial inventory was required to be submitted to the EPA under the provisions of 40 CFR part 51, subpart A at the time of plan development. The 2020 Plan includes an emissions inventory for an earlier year, *i.e.*, calendar year 2011, because that year is the RFP baseline year for the 2008 ozone NAAQS. The 2017 base year inventory was used to forecast all future years for area and mobile sources and to “backcast” such sources for 2011.<sup>51</sup>

To develop the 2011 inventory, CARB relied on actual emissions reported from industrial point sources for 2011 and backcast emissions from 2017 for smaller stationary and certain area sources.<sup>52</sup> Area source emissions from pesticide were developed by CARB based on actual emissions reported for 2011, while those from agricultural burning were developed by CARB based on actual emissions reported for 2008 that were “grown” (that is, projected forward from 2008, based on estimated changes in agricultural burning) to 2011. CARB produced 2011 on-road emissions estimates using EMFAC2017. Non-road emissions were either backcast from 2017 (commercial aircraft and military ocean-going vessels) or were estimated using CARB’s OFFROAD2007 model.<sup>53</sup>

For the 2020 Plan, CARB used the California Emission Projection Analysis Model (CEPAM), 2019 SIP Baseline Emission Projections, Version 1.00 to develop future year emissions forecasts (*i.e.*, 2020, 2023, 2026, 2029 and 2032).<sup>54</sup> In doing so, CARB reviewed the growth and control factors for each category and relevant year along with the resulting emissions projections.<sup>55</sup>

<sup>51</sup> *Id.* at Q–2, footnote 29.

<sup>52</sup> *Id.*

<sup>53</sup> Email dated March 21, 2023, from Nick Cormier, SDCAPCD to John J. Kelly, EPA, Subject: “FW: 2011 emission inventory in SD’s 2020 ozone plan.”

<sup>54</sup> 2020 Plan, Attachment A, Section A.8.

<sup>55</sup> *Id.*

CARB compared year-to-year trends to similar and past datasets to ensure general consistency, checked emissions for specific categories to confirm they reflect the anticipated effects of applicable control measures, and verified mobile source categories with CARB mobile source staff for consistency with the on-road and off-road emission models.<sup>56</sup>

In developing the 2020 Plan, the District worked with the Department of the Navy and the United States Marine Corps to identify specific growth increments from future anticipated actions to include in the baseline emissions forecasts for use by the military to comply with the applicable general conformity regulations. The District then coordinated with CARB to include the growth increments or “budgets” in the applicable source categories in the CEPAM model used by CARB to develop the future year emissions inventories. More specifically, the CEPAM model runs used for the future year emissions estimates in the 2020 Plan reflect a military growth increment of 1.08 tpd of VOC and 8.34 tpd of NO<sub>x</sub> for all future years addressed in the plan.<sup>57</sup> Similarly, the District worked with the San Diego County Regional Airport Authority to identify a growth increment for future anticipated actions at San Diego International Airport (SDIA) for use in connection with the general conformity regulations. The growth increment for SDIA for all future year emissions estimates in the 2020 Plan is 0.141 tpd of VOC and 1.756 tpd for NO<sub>x</sub>.<sup>58</sup> Section III.H of this document provides further information on the military and SDIA growth increments reflected in the 2020 Plan.

The future year emissions estimates in the 2020 Plan include two additional specific adjustments—one to account for pre-base year emissions reduction credits (ERCs) and one to account for the EPA’s rescission, in a final action referred to as “SAFE 1,” of a waiver of preemption of CARB’s light-duty vehicle zero emission vehicle (ZEV) sales mandate and greenhouse gas (GHG) standards.<sup>59</sup>

Under the EPA’s SIP regulations for nonattainment new source review (NSR) programs, a state may allow new major stationary sources or major modifications to use as offsets ERCs that were generated through shutdown or

<sup>56</sup> *Id.*

<sup>57</sup> 2020 Plan, Section 2.1.3.1 and Attachment B.

<sup>58</sup> *Id.*, Section 2.1.3.2 and Attachment C.

<sup>59</sup> “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program” (SAFE 1), 84 FR 51310 (September 27, 2019).

<sup>48</sup> *Id.* at A–35. SANDAG is the metropolitan planning organization (MPO) for San Diego County.

<sup>49</sup> *Id.* at A–36.

<sup>50</sup> *Id.*, Attachment C, “Planned San Diego International Airport Projects Subject to General Conformity.”

curtailed emissions units occurring before the base year of an attainment plan. However, to use such ERCs, the projected emissions inventories used to develop the RFP and attainment demonstration must explicitly include the emissions from such previously shutdown or curtailed emissions units.<sup>60</sup> The District has elected to provide for use of pre-base year ERCs as offsets by explicitly including such ERCs in the future year emissions estimates in the 2020 Plan. The ERC set-aside in the 2020 Plan amounts to 0.71 tpd of VOC and 0.56 tpd of NO<sub>x</sub>.<sup>61</sup>

The “EMFAC2017 Adjustment Factors” refers to adjustment factors that CARB developed for EMFAC2017 to account for the EPA’s SAFE 1 final action that, among other things, withdrew the EPA’s waiver of preemption for CARB’s Advanced Clean Car (ACC) regulation as it pertained to CARB’s ZEV sales mandate and GHG standards.<sup>62</sup> EMFAC2017 reflected emissions reductions that were estimated to be achieved through implementation of the ACC regulation, including the ZEV sales mandate. In response to the EPA’s SAFE 1 action,

CARB developed correction factors to be used to account for the foregone emissions reductions (EMFAC2017 Adjustment Factors).<sup>63</sup> In 2020, the EPA concurred on the use of CARB’s EMFAC2017 Adjustment Factors for the purposes of SIP development in California,<sup>64</sup> and the 2020 Plan takes them into account as an adjustment to the EMFAC2017-derived motor vehicle emissions estimates included in the future year emissions inventories. For the 2020 Plan, the EMFAC2017 Adjustment Factor is generally 0.1 tpd or less for VOC and NO<sub>x</sub> in all future years expected to be affected by the SAFE 1 action.

Table 1 of this document provides a summary of the baseline emissions inventories for the base year and future years in tpd (average summer day) for VOC and NO<sub>x</sub> for the 2008 ozone NAAQS.<sup>65</sup> The inventories summarized in Table 1 distinguish between emissions generated within the nonattainment area and emissions that are generated offshore between three NM and 100 NM from the coastline of San Diego County. Table 1 also shows the adjustments made to account for

ERCs and the EMFAC2017 Adjustment Factors. Table 2 of this document provides the same type of summary information as Table 1, but presents the base year and future years that are relevant for the 2015 ozone NAAQS.

Based on the emissions inventory for 2017, stationary, area, and mobile sources (on-road and off-road) contribute roughly equally to county-wide VOC emissions, whereas mobile sources (on-road and off-road) are the predominant sources of NO<sub>x</sub> emissions. The inventory for 2017 also shows the magnitude of marine offshore (3 NM to 100 NM) emissions sources relative to those within the nonattainment area. A comparison of the base years with the future years shows the significant decrease that is expected to be achieved through CARB’s regulations for new on-road and off-road mobile sources together with vehicle turnover (*i.e.*, the rate of replacement of older, more polluting models with new models manufactured to meet tighter emissions standards). For a more detailed discussion of the methodologies used to develop the inventories, see Attachment A of the 2020 Plan.

TABLE 1—SAN DIEGO COUNTY BASE YEAR AND FUTURE YEAR BASELINE EMISSIONS INVENTORIES FOR THE 2008 OZONE NAAQS

[Summer planning inventory, tpd]

	2011		2017		2020		2023		2026	
	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC
Stationary Sources ...	4.4	27.4	4.1	27.6	4.0	26.9	3.9	26.3	4.0	26.3
Area Sources .....	1.9	36.8	1.7	33.6	1.5	34.3	1.4	34.8	1.2	35.2
On-Road Mobile Sources .....	71.2	34.4	37.7	20.5	28.5	16.5	19.7	13.8	17.5	12.3
Off-Road Mobile Sources .....	33.2	38.0	33.5	31.1	32.6	28.5	31.2	26.7	30.3	25.2
Emission Reduction Credits adjustment .....	.....	.....	.....	.....	0.6	0.7	0.6	0.7	0.6	0.7
EMFAC2017 Adjustment Factor .....	.....	.....	.....	.....	.....	.....	<0.1	0.1	<0.1	<0.1
Total—San Diego County Nonattainment Area .....	110.7	136.6	77.0	112.9	67.1	107.0	56.8	102.4	53.6	99.7
Marine Emissions (3 NM–100 NM) .....	15.8	0.8	17.5	1.0	17.5	1.0	18.1	1.0	18.6	1.1

<sup>60</sup> 40 CFR part 51, Appendix S, section IV.C.5.

<sup>61</sup> 2020 Plan, section 2.1.3.3 and Attachment F.

<sup>62</sup> The EPA issued the ACC waiver on January 9, 2013 (78 FR 2112).

<sup>63</sup> Letter and enclosures dated March 5, 2020 from Steven S. Cliff, Ph.D., Deputy Executive Officer, CARB, to Elizabeth Adams, Director, Air and Radiation Division, EPA Region IX.

<sup>64</sup> Letter dated March 12, 2020, from Elizabeth J. Adams, Director, Air and Radiation Division, EPA Region IX, to Steven S. Cliff, Ph.D., Deputy Executive Officer, CARB.

<sup>65</sup> Tables 1 and 2 summarize anthropogenic emissions sources only, which is consistent with the EPA’s “Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS)

and Regional Haze Regulations” (May 2017).

Anthropogenic emissions sources are distinguishable from natural sources, which include biogenic, geogenic and wildfire emissions sources. Both anthropogenic and natural sources of emissions are, however, included in emissions inventories used for attainment demonstration modeling purposes.

TABLE 1—SAN DIEGO COUNTY BASE YEAR AND FUTURE YEAR BASELINE EMISSIONS INVENTORIES FOR THE 2008 OZONE NAAQS—Continued  
[Summer planning inventory, tpd]

	2011		2017		2020		2023		2026	
	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC
Total—Non-attainment Area plus Marine Emissions (3 NM–100 NM) .....	126.5	137.5	94.5	113.8	84.7	108.0	74.8	103.4	72.2	100.8

Source: 2020 Plan, Attachment A, Tables A–1 and A–3. The sum of the emissions values may not equal the total due to rounding of the numbers.

TABLE 2—SAN DIEGO COUNTY BASE YEAR AND FUTURE YEAR BASELINE EMISSIONS INVENTORIES FOR THE 2015 OZONE NAAQS  
[summer planning inventory, (tpd)]

	2017		2023		2026		2029		2032	
	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC
Stationary Sources ...	4.1	27.6	3.9	26.3	4.0	26.3	4.0	26.6	4.1	27.2
Area Sources .....	1.7	33.6	1.4	34.8	1.2	35.2	1.0	35.6	1.0	36.1
On-Road Mobile Sources .....	37.7	20.5	19.7	13.8	17.5	12.3	16.0	11.1	15.1	10.0
Off-Road Mobile Sources .....	33.5	31.1	31.2	26.7	30.3	25.2	29.7	24.2	28.9	23.2
Emission Reduction Credits adjustment .....			0.6	0.7	0.6	0.7	0.6	0.7	0.6	0.7
EMFAC2017 Adjustment Factor .....			<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Total—San Diego County Nonattainment Area .....	77.0	112.9	56.8	102.4	53.6	99.7	51.3	98.2	49.7	97.2
Marine Emissions (3 NM–100 NM) .....	17.5	1.0	18.1	1.0	18.6	1.1	19.0	1.0	19.3	1.1
Total—Non-attainment Area plus Marine Emissions (3 NM–100 NM) .....	94.5	113.8	74.8	103.4	72.2	100.8	70.0	99.3	69.0	98.3

Source: 2020 Plan, Attachment A, Tables A–1 and A–3. The sum of the emissions values may not equal the total due to rounding of the numbers.

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

The 2020 Plan refers to year 2017 as the base year inventory for both the 2008 and 2015 ozone NAAQS but also includes an inventory of actual emissions in calendar year 2011, which we have reviewed for the purpose of evaluating compliance with the base year emissions inventory SIP requirement for the 2008 ozone NAAQS. Year 2017 is the appropriate base year for the emissions inventory SIP requirement for the 2015 ozone NAAQS.

We have reviewed the 2011 and 2017 base year emissions inventories in the 2020 Plan and the inventory

methodologies used by the District and CARB for consistency with CAA requirements and EPA guidance. First, we find that the 2011 and 2017 inventories include estimates for VOC and NO<sub>x</sub> for a typical ozone season weekday, and that CARB has provided adequate documentation explaining how the emissions are calculated. Second, we find that the 2011 and 2017 base year emissions inventories in the 2020 Plan reflect appropriate emissions models and methodologies, and, therefore, represent comprehensive, accurate, and current inventories of actual emissions during those years in the San Diego County area. Therefore,

the EPA is proposing to approve the 2011 and 2017 emissions inventories in the 2020 Plan as meeting the requirements for base year inventories for 2008 and 2015 ozone set forth in CAA sections 172(c)(3) and 182(a)(1), and 40 CFR 51.1115 and 40 CFR 51.1315. In addition, although the requirement for a base year emissions inventory applies to the nonattainment area, we find that the District's estimates of marine emissions out to 100 NM (*i.e.*, beyond the nonattainment area boundary that extends three NM offshore) are reasonable and appropriate to include in the 2020 Plan given that such emissions must be accounted for in

the ozone attainment demonstrations for this nonattainment area.

With respect to the future year emissions baseline projections, we have reviewed the growth and control factors and find them acceptable and conclude that the future baseline emissions projections in the 2020 Plan reflect appropriate calculation methods and the latest planning assumptions. We have also reviewed the documentation concerning the growth increments for the military and for SDIA and the documentation for the ERCs and find that they are appropriately accounted for in the future year baseline emissions inventories or, in the case of the ERCs, as an off-model adjustment to the inventories.<sup>66</sup> With respect to the EMFAC2017 Adjustment Factors, we note that, since adoption of the 2020 Plan, the EPA has rescinded SAFE 1 (the withdrawal of the waiver of CARB's ZEV sales mandate and GHG standards),<sup>67</sup> which calls into question the use of the EMFAC2017 Adjustment Factor, as it may affect projections, particularly over the long term. However, as shown in Tables 1 and 2, the EMFAC2017 Adjustment Factor adjustment in the future year emissions inventories is insignificant (0.1 tpd or less for both VOC and NO<sub>x</sub>), and thus the change in circumstances regarding the status of CARB's ZEV sales mandate does not affect the emissions projections used for the RFP and attainment demonstrations in the 2020 Plan.

Also, as a general matter, the EPA will approve a SIP revision that takes emissions reduction credit for a control measure only where the EPA has approved the measure as part of the SIP. Thus, to take credit for the emissions reductions from District rules for stationary sources and CARB rules for mobile sources, the related rules must be approved by the EPA into the SIP.<sup>68</sup> The EPA performed a review of District rules relied upon in developing the future baseline emissions inventories for the 2020 Plan.<sup>69</sup> Based on our review, we find that, with only one exception that does not implicate the RFP or attainment demonstrations of the 2020 Plan,<sup>70</sup> District rules relied upon in

developing the future baseline emissions inventories are approved as part of the SIP. With respect to mobile sources, the EPA has taken action in recent years to approve CARB mobile source regulations into the California SIP.<sup>71</sup> We therefore find that the future year baseline projections in the 2020 Plan are properly supported by SIP-approved stationary and mobile source measures.

### *B. Reasonably Available Control Measures Demonstration and Control Strategy*

#### 1. Statutory and Regulatory Requirements

CAA section 172(c)(1) requires that each attainment plan provide for the implementation of all RACM as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through implementation of reasonably available control technology (RACT)), and to provide for attainment of the NAAQS. The 2008 Ozone SRR and the 2015 Ozone SRR require that, for each nonattainment area required to submit an attainment demonstration, the state concurrently submit a SIP revision demonstrating that it has adopted all RACM necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP requirements.<sup>72</sup>

The EPA has previously provided guidance interpreting the RACM requirement, in the General Preamble for the Implementation of the Clean Air Act Amendments of 1990 ("General Preamble") and in a memorandum entitled "Guidance on the Reasonably Available Control Measure Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas."<sup>73</sup> In short, to address the requirement to adopt all RACM, states should consider all potentially reasonable measures for source categories in the nonattainment area to determine whether they are reasonably

emissions reductions are not of a magnitude as to implicate the RFP or attainment demonstrations.

<sup>71</sup> See 81 FR 39424 (June 16, 2016), 82 FR 14446 (March 21, 2017), and 83 FR 23232 (May 18, 2018).

<sup>72</sup> 40 CFR 51.1112(c); 40 CFR 51.1312(c). The "San Diego County area" is shorthand for two nonattainment areas, one for each of two ozone NAAQS: the 2008 and the 2015 ozone NAAQS. The boundary is the same for both areas. Accordingly, the District submitted two attainment demonstrations in the 2020 Plan, one for each of the two standards.

<sup>73</sup> See General Preamble, 57 FR 13498, 13560 (April 16, 1992) and memorandum dated November 30, 1999, from John S. Seitz, Director, OAQPS, to Regional Air Directors, Subject: "Guidance on the Reasonably Available Control Measure Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas."

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.<sup>74</sup> Any measures that are necessary to meet these requirements that are not already either federally promulgated, or part of the state's SIP, must be submitted in enforceable form as part of the state's attainment plan for the area.

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 guideline. CAA section 182(f) requires that RACT under section 182(b)(2) also apply to major stationary sources of NO<sub>x</sub>. In Severe areas, a major source is a stationary source that emits or has the potential to emit at least 25 tpy of VOC or NO<sub>x</sub> (CAA sections 182(d) and (f)). Under the 2008 Ozone SRR and the 2015 Ozone SRR, states were required to submit SIP revisions meeting the RACT requirements of CAA sections 182(b)(2) and 182(f) no later than 24 months after the effective date of designation for the 2008 ozone NAAQS and the 2015 ozone NAAQS, respectively. Implementation of the required RACT measures is required as expeditiously as practicable but no later than January 1 of the 5th year after the effective date of designation for the 2008 ozone NAAQS (see 40 CFR 51.1112(a)) and for the 2015 ozone NAAQS (see 40 CFR 51.1312(a)).<sup>75</sup>

#### 2. Summary of the State's Submission

The 2020 Plan presents two RACM demonstrations. The first is included in Section 3.2.1 and addresses the 2008 ozone NAAQS. The second is presented in Section 4.2.1 for the 2015 ozone NAAQS. Within each Section, the 2020 Plan presents a RACM analysis organized by several emissions source groups. The District and CARB each undertook a process to identify and evaluate potential RACM that could contribute to expeditious attainment of the 2008 ozone NAAQS and the 2015

<sup>74</sup> Id. See also 44 FR 20372 (April 4, 1979), and memorandum dated December 14, 2000, from John S. Seitz, Director, OAQPS, to Regional Air Directors, Subject: "Additional Submission on RACM From States with Severe One-Hour Ozone Nonattainment Area SIPs."

<sup>75</sup> California submitted the CAA section 182 RACT SIP for the San Diego County area for both the 2008 and 2015 ozone NAAQS, as a Severe nonattainment area with a 25 tpy major source threshold, on December 29, 2020. To date, the EPA has taken several actions on the San Diego County RACT SIP. We are not taking action on the RACT SIP in this rulemaking but will be completing action on it in a separate rulemaking(s).

<sup>66</sup> See Section III.H of this document for our full evaluation, and proposed approval, of the growth increments for the military and SDIA.

<sup>67</sup> 87 FR 14332 (March 14, 2022).

<sup>68</sup> See generally *Committee for a Better Arvin v. EPA*, 786 F.3d 1169, 1175–1177 (9th Cir. 2015).

<sup>69</sup> The EPA's review of District rules relied upon in developing the future baseline emissions inventories is presented in Memorandum to Docket EPA–R09–OAR–2021–0135 from Jeff Wehling, Office of Regional Counsel, EPA Region IX, August 25, 2023.

<sup>70</sup> District Rule 61.4.1 should be submitted for approval as part of the SIP; however, the related

ozone NAAQS in the San Diego County area. In addition, the District presented a “RACM Cumulative Analysis” for each standard as an overarching analysis of all source categories covered by CARB, the District and SANDAG.<sup>76</sup>

The 2020 Plan’s RACM section for the 2008 ozone NAAQS begins by determining the magnitude of emissions reductions that would be needed to advance the area’s attainment date by one year. As noted in Section I.B of this document, air pollutants transported from the South Coast region contribute

to higher ozone levels in San Diego County under certain weather conditions. Accordingly, the RACM analysis in the 2020 Plan for the 2008 ozone NAAQS accounts for projected emissions from the San Diego County-South Coast transport couplet.<sup>77</sup>

Using emissions levels of the District’s chosen 2026 attainment demonstration year as a basis for comparison, the District compared emissions levels from 2026 to what the levels are projected to be one year earlier, that is, 2025. The lower levels in

2026 were then subtracted from the higher levels of emissions in 2025, providing a difference in emissions levels that could then be compared against the 2020 Plan’s RACM, that is, emissions reductions from reasonably available control measures, to determine if enough RACM reductions would be available to advance the 2026 attainment year to 2025. These levels are provided in Table 3 of this document.

TABLE 3—EMISSIONS REDUCTIONS NEEDED TO ADVANCE ATTAINMENT BY ONE YEAR, 2008 OZONE NAAQS

Emissions totals	Emissions (tpd)
2026 VOC Emissions Inventory .....	471.0
2025 VOC Emissions Inventory .....	473.8
VOC Emissions Reductions Needed in 2025 to Demonstrate Attainment .....	2.8
2026 NO <sub>x</sub> Emissions Inventory .....	344.0
2025 NO <sub>x</sub> Emissions Inventory .....	347.4
NO <sub>x</sub> Emissions Reductions Needed in 2025 to Demonstrate Attainment .....	3.4

Source: 2020 Plan, Table 3–2 and Table A–2.

Because the District’s attainment demonstration relies on specific levels of emissions of both VOC and NO<sub>x</sub>, the reductions of emissions to advance that attainment date one year would require reductions in both VOC and NO<sub>x</sub> at the levels shown in Table 3, that is, 2.8 tpd of VOC and 3.4 tpd of NO<sub>x</sub> (“2008 ozone NAAQS RACM targets”). These amounts of reductions are then viewed as targets to see if they can be met or exceeded, and if so, then the attainment year for the 2008 ozone NAAQS would be moved up one year, to 2025. The 2020 Plan groups emissions sources into several large categories and assesses each one to identify potential RACM and to determine their potential collectively to provide emissions reductions equal to or greater than these targets.

#### a. 2008 Ozone NAAQS, District’s RACM Analysis

The District provides a comprehensive evaluation of its 2008 ozone NAAQS RACM control strategy in Section 3.2.1 (“Reasonably Available Control Measures” (RACM) Demonstration”) and Attachments A, D, G, H, I and J of the 2020 Plan. The evaluation includes: source descriptions; base year and projected baseline year emissions for the source category affected by the rule; discussion of the current requirements of the rule;

and discussion of potential additional control measures, including, in many cases, a discussion of the technological and economic feasibility of the additional control measures. This includes a comparison of each District rule to analogous control measures adopted by other agencies.

The District’s RACM demonstration for the 2008 ozone NAAQS begins with an analysis of stationary source controls, described in Section 3.2.1.2 (“Identifying Potential RACM for Stationary Sources”) of the 2020 Plan. This section of the 2020 Plan identifies potential control measures and analyzes these measures for emissions reduction opportunities, as well as economic and technological feasibility. The District’s comprehensive demonstration considers potential control measures for stationary sources located throughout the area under its jurisdiction, that is, the entirety of San Diego County.

As a first step in the RACM analysis, the District prepared a detailed inventory of emissions sources of VOC and NO<sub>x</sub> to identify source categories from which emissions reductions would effectively contribute to attainment. Details on the methodology and development of the emissions inventory are discussed in Section 3 and Attachment A of the 2020 Plan. Because the San Diego County area airshed is coupled with the South Coast Air Basin,

which was used in the attainment demonstration modeling in the 2020 Plan, the District prepared a “couplet” emissions inventory that includes the two areas’ combined emissions. A total of 75 source categories are included in the couplet emissions inventory: 45 for stationary and area sources and 30 for mobile sources.<sup>78</sup> Although the couplet emissions inventory includes South Coast and is therefore used in calculating the 2008 ozone NAAQS RACM targets (2.8 tpd VOC, 3.4 tpd NO<sub>x</sub>), only sources of emissions within San Diego County were evaluated for their potential to either meet the 2008 ozone NAAQS RACM targets or to contribute to a collective reduction to meet those targets.

The District compared the 45 source categories to its rules for stationary and area sources. This analysis builds upon a foundation of District rules developed for earlier ozone plans and approved as part of the SIP. These rules establish emissions limits or other types of emissions controls for a wide range of sources, including VOC storage and handling, use of solvents, gasoline storage, gasoline transfer, dry cleaning with petroleum-based solvent, architectural coatings, surface coating operations, marine, wood products and aerospace coating operations, degreasing operations, cutback and emulsified asphalts, kelp processing and

<sup>76</sup> 2020 Plan, Sections 3.2.1 and 4.2.1.

<sup>77</sup> 2020 Plan, p. 38. In this context, “transport couplet” refers to a “transport couple,” a term that refers to two air basins, one of which has an impact

on ambient air pollutant concentrations in the other air basin due to transport of pollutants and precursors by prevailing wind patterns. See “Assessment of the Impacts of Transported

Pollutants on Ozone Concentrations in California,” CARB, March 2001.

<sup>78</sup> 2020 Plan, Table A–2.

biopolymer manufacturing operations, pharmaceutical and cosmetic manufacturing, and bakery ovens, among others. These rules have already provided significant reductions toward attainment of the 2008 ozone NAAQS by 2026.

The District excluded RACT rules from their stationary source RACM analysis because those rules are already required by federal law to be included in the SIP and are therefore not “potential” RACM control measures. Likewise, the District excluded stationary and area sources it regulates under the State’s requirement to adopt “all feasible measures,” as these measures are also already implemented and incorporated into the area’s attainment demonstration, and are therefore also not potential RACM. In addition, California state law requires “Best Available Retrofit Control Technology” or BARCT.<sup>79</sup> Because BARCT is an ongoing requirement for the District, BARCT rules are already implemented, would provide no new emissions reductions, and are therefore not potential RACM.

To demonstrate that the SDCAPCD considered all candidate measures that are available and technologically and economically feasible for stationary sources, the District conducted several steps in their analysis.

#### Step 1. Stakeholder Outreach

As part of a previous planning effort for the 2008 ozone NAAQS (the 2016 Moderate Plan),<sup>80</sup> and again as part of the SIP development effort for the (Severe) 2020 Plan, the District held multiple stakeholder outreach sessions. These sessions were intended to solicit stakeholder input on the full array of control measures that might be available for emissions sources in the area. Two public workshops were held in July 2020, in addition to other individual stakeholder meetings that were held for feedback on the entire draft 2020 Plan before and after each public workshop. These meetings built upon similar outreach the District conducted for prior federal and state air quality plans, including the 2016 Moderate Plan.

<sup>79</sup> California Health & Safety Code sections 40918, 40919, 40920 and 40920.5.

<sup>80</sup> The State of California submitted the San Diego County area’s 2016 Moderate ozone attainment plan to the EPA as a SIP revision on April 12, 2017. At the time, the area was a Moderate nonattainment area for the 2008 ozone NAAQS. The State withdrew the 2016 Moderate ozone attainment plan by letter dated December 16, 2021 following submittal of the 2020 Plan and the EPA’s grant of the State’s request to reclassify San Diego County to Severe for the 2008 ozone NAAQS.

#### Step 2. Reasonably Available Control Technology Analysis

The District then considered Reasonably Available Control Technology (RACT) stationary source categories and found 11 existing District control measures that could be further controlled when compared to existing rules in other California air districts.<sup>81</sup> These 11 control measures apply to specific types of emissions sources: Receiving and Storing Volatile Organic Compounds at Bulk Plants and Bulk Terminals, Transfer of Organic Compounds into Mobile Transport Tanks, Metal Parts and Product Coating Operations, Paper, Film, and Fabric Coatings, Aerospace Coating Operations, Graphic Arts Operations, Marine Coating Operations, Adhesive Materials Application Operations, Industrial and Commercial Boilers, Process Heaters and Steam Generators, Natural Gas-Fired Fan-Type Central Furnaces, and Stationary Gas Turbine Engines. The SDCAPCD compared its rules to the analogous rules for the same stationary source types in other California air districts, as candidate potential measures, and estimated the potential emissions reductions associated with each control measure if it were modified to reflect the other district’s rule.

#### Step 3. EPA Technical Support Documents (TSDs)

The District researched TSDs from recent EPA rulemakings but did not find any potential additional stationary source controls beyond what its RACT analysis found.<sup>82</sup>

#### Step 4. Control Measures in Other Areas

The District reviewed stationary source control measures in other areas (*i.e.*, San Francisco Bay Area, Sacramento, San Joaquin Valley, Santa Barbara, South Coast, and Ventura County) to evaluate whether control technologies available and cost-effective within other areas would be available and cost-effective for use in the San Diego County area.<sup>83</sup> These include six control measures: Vacuum Truck Operations, Miscellaneous NO<sub>x</sub> Sources, Equipment Leaks, Restaurant Cooking Operations, Food Products Manufacturing/Processing, and Metalworking Fluids and Direct-Contact Lubricants.

<sup>81</sup> 2020 Plan, Table G–1, items G.1 to G.11.

<sup>82</sup> Email dated August 31, 2023, from Nick Cormier, SDCAPCD, to John J. Kelly, EPA.

<sup>83</sup> 2020 Plan, Table G–1, items G.12 to G.17.

#### Step 5. EPA Menu of Control Measures

The Menu of Control Measures (MCM)<sup>84</sup> compiled by the EPA’s Office of Air Quality Planning and Standards was created to provide information useful in the development of emissions reduction strategies and to identify and evaluate potential control measures. District staff reviewed the EPA’s MCM for stationary source point and nonpoint sources of NO<sub>x</sub> and VOC.

Based on its evaluation of all available stationary source control measures, the District concluded that its existing rules are generally as stringent as analogous rules in other districts, and where they were not, quantified the difference. In all, the District estimated that the total possible emissions reductions from further control of stationary sources subject to existing District rules and control of additional source categories would be approximately 0.4 tpd for VOC and 0.4 tpd for NO<sub>x</sub>.<sup>85</sup>

#### b. 2008 Ozone NAAQS, RACM Analysis for Transportation Control Measures

Attachment H of the 2020 Plan contains the District’s transportation control measure (TCM) RACM evaluation. The implemented TCMs in Attachment H are applicable in San Diego County. The District conducted the TCM RACM analysis on behalf of SANDAG and local jurisdictions in San Diego County, based on SANDAG’s regional transportation plan (RTP), specifically, “San Diego Forward: The 2019 Federal Regional Transportation Plan” (“2019 RTP”).<sup>86</sup> The 2019 RTP was developed in consultation with federal, state and local transportation and air quality planning agencies and other stakeholders.

As described in Attachment H of the 2020 Plan, for the TCM RACM analysis, the District listed all TCMs that are included in CAA section 108(f) and their implementation status in San Diego County.<sup>87</sup> Of the 16 TCMs listed in CAA section 108(f), 13 are implemented in San Diego County. Of these implemented TCMs, five were included in the area’s 1982 SIP.

Of the three TCMs that are not implemented in San Diego County, one (“Trip Reduction Ordinances”) was adopted in 1994, but was then rescinded in 1995 when federal and State laws were amended eliminating the mandate

<sup>84</sup> EPA, MCM, April 12, 2012.

<sup>85</sup> 2020 Plan, Attachment G, Table G–1.

<sup>86</sup> The 2019 RTP was adopted by SANDAG’s Board on October 25, 2019. The 2019 RTP was approved by the Federal Highway Administration on November 15, 2019.

<sup>87</sup> 2020 Plan, Attachment H, “Implementation Status of Transportation Control Measures,” Table H–1.

for such measures.<sup>88</sup> Another (“Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use” or “Peak Use Restriction Programs”) was found to be infeasible due to San Diego’s low-density land use pattern and accompanying longer transit travel times. However, the District notes that SANDAG’s Smart Growth Incentive Program provides funding to cities in San Diego County for infrastructure projects that enhance alternatives to driving in higher density areas.

Finally, one TCM, (“Programs to reduce motor vehicle emissions, consistent with Title II, which are caused by extreme cold start conditions” or “Cold Weather Start Programs”) was found to be not applicable to San Diego County due to its mild climate.

Based on its review of TCM projects implemented in San Diego County, the District determined that 13 of the 16 TCMs listed in CAA section 108(f) are being implemented in the county and are therefore ineligible for consideration as potential RACM. To determine if the three unimplemented TCMs could be required as RACM, the District estimated the maximum emissions reductions to be attributed to those TCMs.

The 2020 Plan estimates the maximum emissions reduction potential of the three unimplemented TCMs, citing a 1992 SANDAG study that estimated maximum emissions reductions for Trip Reduction Ordinances alone at less than 2 percent of on-road vehicle emissions.<sup>89</sup> The 1992 SANDAG study also found that potential reductions of all 15 of the other TCMs combined do not equal the Trip Reduction Ordinances TCM alone. Therefore, the 2020 Plan estimates the maximum potential emissions reduction potential of the three unimplemented TCMs as 2 percent of on-road vehicle emissions in a given year. For the modeled attainment year, 2026, projected on-road motor vehicle emissions in San Diego County are 12.2 tpd VOC and 17.5 tpd NO<sub>x</sub>. Two

percent of these projected emissions is 0.2 tpd VOC and 0.4 tpd NO<sub>x</sub>.

c. 2008 Ozone NAAQS, CARB’s RACM Analysis

CARB’s RACM analysis is contained in Attachment I (“CARB Analyses of Potential Additional Mobile Source and Consumer Products Control Measures”) (“CARB RACM assessment”) of the 2020 Plan. The CARB RACM analysis provides a general description of CARB’s existing mobile source programs. In its analysis, CARB includes mobile source control measures described in CARB’s “2016 State Strategy for the State Implementation Plan” (2016 State Strategy).<sup>90</sup> A more detailed description of CARB’s mobile source control program, including a comprehensive table listing on- and off-road mobile source regulatory actions taken by CARB from 1985 to 2019, is contained in Attachment D of the 2020 Plan (“CARB Control Measures, 1985 to 2019 (March 2020)”). CARB’s RACM analysis and 2016 State Strategy collectively contain CARB’s evaluation of mobile source and other statewide control measures that reduce emissions of NO<sub>x</sub> and VOC in California, including San Diego County.

Source categories for which CARB has primary responsibility for reducing emissions in California include most new and existing on- and off-road engines and vehicles, motor vehicle fuels, and consumer products. CARB developed its 2016 State Strategy through a multi-step measure development process, including extensive public consultation, to develop and evaluate potential strategies for mobile source categories under CARB’s regulatory authority that could contribute to expeditious attainment of the standard.<sup>91</sup> Through the process of developing the 2016 State Strategy, CARB identified certain defined measures as available to achieve additional VOC and NO<sub>x</sub> emissions reductions from sources under CARB jurisdiction, including tighter requirements for new light- and medium-duty vehicles (referred to as the “Advanced Clean Cars 2” measure), a low-NO<sub>x</sub> engine standard for vehicles with new heavy-duty engines, tighter emissions standards for small off-road engines, and more stringent requirements for consumer products, among others.<sup>92</sup> In adopting the 2016

State Strategy, CARB committed to bringing the defined measures to the CARB Board for action according to the specific schedule included as part of the strategy.<sup>93</sup>

Given the need for substantial emissions reductions from mobile and area sources to meet the NAAQS in California nonattainment areas, CARB established stringent control measures for on-road and off-road mobile sources and the fuels that power them. California has unique authority under CAA section 209 (subject to a waiver by the EPA) to adopt and implement new emission standards for many categories of on-road vehicles and engines, and new and in-use off-road vehicles and engines.

CARB’s mobile source program extends beyond regulations that are subject to the waiver or authorization process set forth in CAA section 209 to include standards and other requirements to control emissions from in-use heavy-duty trucks and buses, gasoline and diesel fuel specifications, and many other types of mobile sources. Generally, these regulations have been submitted and approved as revisions to the California SIP.<sup>94</sup>

In their RACM analysis, CARB concludes that, in light of the extensive public process culminating in the 2016 State Strategy, with the current mobile source program and proposed measures included in the 2016 State Strategy, there are no additional mobile source RACM that would advance attainment of the 2008 ozone NAAQS in San Diego County. As a result, CARB concludes that California’s mobile source programs fully meet the RACM requirement.<sup>95</sup>

Attachment I of the 2020 Plan describes CARB’s current consumer products program and commitments in the 2016 State Strategy to achieve additional VOC reductions from consumer products.<sup>96</sup> As described in Attachment I, CARB’s current consumer products program limits VOC emissions from 129 consumer product categories, including product categories such as

<sup>93</sup> CARB Resolution 17–7 (dated March 23, 2017), p. 7. CARB’s resolution is available in the docket for this action and at <https://ww3.arb.ca.gov/planning/sip/2016sip/res17-7.pdf>.

<sup>94</sup> See, e.g., the EPA’s approval of standards and other requirements to control emissions from in-use heavy-duty diesel-powered trucks, at 77 FR 20308 (April 4, 2012), revisions to the California on-road reformulated gasoline and diesel fuel regulations at 75 FR 26653 (May 12, 2010), and revisions to the California motor vehicle inspection and maintenance program at 75 FR 38023 (July 1, 2010).

<sup>95</sup> 2020 Plan, p. I–6.

<sup>96</sup> Id., pp. I–6, I–7. CARB’s consumer product measures are found in the California Code of Regulations, Title 17 (“Public Health”), Division 3 (“Air Resources”), Chapter 1 (“Air Resources Board”), Subchapter 8.5 (“Consumer Products”).

<sup>88</sup> As amended in 1990, CAA section 182(d)(1)(B) required states with Severe ozone nonattainment areas to adopt and submit SIP revisions requiring employers in such areas to implement programs to reduce work-related vehicle trips and miles traveled by employees, commonly referred to as “trip reduction ordinances.” Amendments to the CAA promulgated in 1995 revised CAA section 182(d)(1)(B) such that trip reduction ordinances are no longer required but may be adopted and submitted as SIP revisions at the state’s discretion.

<sup>89</sup> “Transportation Control Measures for the Air Quality Plan,” SANDAG, 1992.

<sup>90</sup> CARB’s 2016 State Strategy is available in the docket for this action and at <https://ww3.arb.ca.gov/planning/sip/2016sip/rev2016statesip.pdf>.

<sup>91</sup> 2020 Plan, p. I–2.

<sup>92</sup> 2016 State Strategy, Chapter 4 (“State SIP Measures”).

antiperspirants and deodorants and aerosol coatings.<sup>97</sup> The EPA has approved these measures into the California SIP as VOC emissions controls for a wide array of consumer products.<sup>98</sup>

d. 2008 Ozone NAAQS, the District's RACM Conclusion

In addition to evaluating a number of stationary, area, and mobile sources, as well as consumer products, in the separate groups as described in Section III.B.a. to Section III.B.c. in this document, the District presents a "cumulative analysis" to assess whether all potential RACM combined could result in advancement of the modeled 2026 attainment year to 2025.<sup>99</sup> Attachment J ("Calculation of Cumulative Potential Emission Reductions for Possible Reasonably Available Control Measures (RACM)") of the 2020 Plan presents the cumulative potential RACM.<sup>100</sup> When taken together, all potential RACM reductions of VOC and NO<sub>x</sub> that the District and CARB evaluated amount to approximately 0.7 tpd VOC and 0.7 tpd NO<sub>x</sub>. These amounts fall far short of the 2008 ozone RACM targets of 2.8 tpd VOC and 3.4 tpd NO<sub>x</sub>.<sup>101</sup> The District therefore concludes that, collectively,

there are not enough potential RACM reductions to advance the attainment date.

e. 2015 Ozone NAAQS, RACM

In addition to addressing RACM for the 2008 ozone NAAQS, the 2020 Plan addresses RACM for the 2015 NAAQS. Section 4.2.1, "Reasonably Available Control Measures (RACM) Demonstration," of the 2020 Plan contains the plan's RACM demonstration for the 2015 ozone NAAQS. The demonstration reflects much of what the 2020 Plan presents for demonstrating RACM for the 2008 ozone NAAQS and relies on the same attachments described in Section III.B.2.a.–d. of this document, that is, Attachments A ("Emissions Inventories and Documentation for Baseline, RFP, and Attainment Years"), D ("CARB Control Measures, 1985 to 2019"), G ("Analyses of Potential Additional Stationary Source Control Measures"), H ("Implementation Status of Transportation Control Measures"), I ("CARB Analyses of Potential Additional Mobile Source and Consumer Products Control Measures"), and J ("Calculation of Cumulative Potential Emission Reductions for

Possible Reasonably Available Control Measures (RACM)").

In the 2020 Plan, the District compares 2032 projected emissions of the ozone precursors VOC and NO<sub>x</sub> to those of the year prior, 2031, to determine the amount of emissions reductions that would be necessary in order to advance attainment by one year, to 2031, providing a 2015 ozone NAAQS RACM target. These levels are provided in Table 4 of this document. Unlike the emissions projections used to determine the magnitude of emissions reductions that would be necessary to advance attainment by one year for the RACM demonstration for the 2008 ozone NAAQS, the emissions projections used to determine the magnitude of emissions reductions necessary to advance attainment by one year for the RACM demonstration for the 2015 ozone NAAQS reflect emissions only for San Diego County (*i.e.*, including marine emissions 3 to 100 NM off the County coastline) rather than those for the South Coast-San Diego couplet. Using this more conservative approach, the District determined that VOC reductions of 0.1 tpd and NO<sub>x</sub> reductions of 5.9 tpd would advance the attainment date for the 2015 ozone NAAQS by one year.<sup>102</sup>

TABLE 4—EMISSIONS REDUCTIONS NEEDED TO ADVANCE ATTAINMENT BY ONE YEAR, 2015 OZONE NAAQS

Emissions totals	Emissions (tpd)
2032 VOC Emissions Inventory .....	98.3
2031 VOC Emissions Inventory .....	98.4
VOC Emissions Reductions Needed in 2031 to Demonstrate Attainment .....	0.1
2032 NO <sub>x</sub> Emissions Inventory .....	* 63.3
2031 NO <sub>x</sub> Emissions Inventory .....	69.2
NO <sub>x</sub> Emissions Reductions Needed in 2025 to Demonstrate Attainment .....	5.9

Source: 2020 Plan, Table 4–2, "Emissions Reductions Required to Advance Attainment By One Year, 2015 Ozone NAAQS (tons per day)."

\* Adjusted for RACM. The unadjusted 2032 NO<sub>x</sub> emissions inventory for San Diego County is 69.0 tpd. However, for attainment purposes, CARB has committed to obtain additional emissions reductions, in the amount of 4 tpd NO<sub>x</sub>, as described in Section 4.3.5 of the 2020 Plan, and 1.7 tpd NO<sub>x</sub>, as described in Section 4.3.4 of the 2020 Plan and in Attachment L, Section L.3.9. These commitments add up to 5.7 tpd NO<sub>x</sub>, leaving a total emissions inventory of NO<sub>x</sub> in 2032 of 63.3 tpd.

Once the District identifies 2015 ozone NAAQS RACM targets (0.1 tpd VOC, 5.9 tpd NO<sub>x</sub>) in the 2020 Plan, the District assesses all potential RACM reductions to determine if, collectively, they could equal or exceed the targets. The District analyzes these potential RACM reductions in essentially the same steps as those taken to assess

potential RACM for the 2008 ozone NAAQS, starting with stationary sources. As described in Section III.B.2.a. of this document, for the stationary source portion of the RACM demonstration for the 2008 ozone NAAQS, if all potential stationary source RACM were adopted in the area, stationary source emissions would be

reduced an additional 0.41 tpd for VOC and 0.40 tpd for NO<sub>x</sub>.<sup>103</sup> With respect to TCMs, the District estimates that if all unimplemented TCMs were to be adopted, transportation-related emissions sources in San Diego County would be reduced by 2 percent of the on-road motor vehicle emissions inventory for year 2032, or

<sup>97</sup> Id., p. D–34.

<sup>98</sup> The compilation of such measures that have been approved into the California SIP, including Federal Register citations, is available at: <https://www.epa.gov/sips-ca/epa-approved-regulations-california-sip>. EPA's most recent approval of amendments to California's consumer products regulations was in 2020. 85 FR 57703 (September 16, 2020).

<sup>99</sup> 2020 Plan, Section 3.2.1.6, "RACM Cumulative Analysis," pp. 41–42.

<sup>100</sup> Id., Table J–1.

<sup>101</sup> Although the District based its RACM analysis for the 2008 ozone NAAQS on emissions reductions in the San Diego County-South Coast transport couplet, the District also analyzed emissions reductions from the District alone and also concluded that the attainment year could not be

advanced one year with RACM emissions reductions. See email dated August 9, 2023, from Nick Cormier, SDCAPCD, to Jefferson Wehling, EPA.

<sup>102</sup> 2020 Plan, Table 4–2, p. 58.

<sup>103</sup> 2020 Plan, Attachment G, Table G–1, "Stationary Source Categories for Which More Stringent Control Requirements Have Been Adopted by Another Air District," p. G–1.

approximately 0.2 tpd VOC and 0.3 tpd NO<sub>x</sub>. For mobile sources and consumer products, the District concludes in the 2020 Plan that there are no potential RACM reductions available since all reasonable rules regulating both are currently being implemented.<sup>104</sup> In the 2020 Plan, the District bases this conclusion on analysis performed by CARB in Attachment I, which we describe in Section III.B.2.c. of this document regarding 2008 ozone NAAQS RACM.

The District included an additional step in its RACM analysis for the 2015 ozone NAAQS, which was not performed for the 2008 ozone NAAQS. The purpose was to determine whether further reductions would be possible, given that the area's 2032 modeled attainment year was further in the future for the 2015 ozone NAAQS than for the 2008 ozone NAAQS (2026). The District assessed the top ten non-mobile source categories of VOC and NO<sub>x</sub> in San Diego County's emissions inventory.<sup>105</sup>

For each of these categories, the District estimates the percentage of the county's 2032 emissions of VOC and NO<sub>x</sub>.<sup>106</sup> In each of two tables in the 2020 Plan (Table 4–3 and Table 4–4), the District provides, for each category: the numerical ranking from 1 to 10, with 1 representing the category with the highest emissions of all ten categories; the source category name; the emission inventory code or EIC;<sup>107</sup> 2017 base year and 2032 projected attainment year emissions of VOC or NO<sub>x</sub>; the percentage of the County's projected 2032 total emissions of VOC or NO<sub>x</sub>; a description of applicable regulations for the category; and whether there are potential RACM reductions, with an accompanying justification. The purpose of this last item, potential RACM and justification, is to determine first if there are RACM reductions available. A “yes” in this column indicates that the category has further reductions that are not being implemented. A “no” indicates that the category has no potential RACM reductions. Justifications for a “no” in this column vary. For example, the number 1 category of VOC non-mobile emissions is Consumer Products. These

were discussed in both the 2008 and 2015 ozone NAAQS RACM sections in the 2020 Plan. In both instances, the conclusions, based on the analyses provided, are that there are no further CARB Consumer Products regulations to put in place.

In the 2020 Plan, text accompanying each of these two tables (that is, Tables 4–3 and 4–4) provides further assessment of each category. To continue the example for Consumer Products, the text explains that CARB has been developing regulations for this category for thirty years, developing regulations for over 100 consumer product categories. These regulations have been amended frequently, with increasing levels of stringency for VOC limits and reactivity limits.

In each of these two tables, the District demonstrates that the top ten categories of VOC and NO<sub>x</sub> are addressed in the 2020 Plan. Where a potential for RACM exists, each category is addressed in the 2020 Plan in Sections 3.2.1.1 and 4.2.1.1 regarding RACM for the 2008 and 2015 ozone NAAQS, respectively, and in Attachment G.

#### f. 2015 Ozone NAAQS, the District's RACM Conclusion

After evaluating the emissions reduction potentials of stationary, area, and mobile sources, as well as consumer products, by themselves, the District presents a “cumulative analysis” to assess whether all potential RACM combined could result in advancement of the modeled 2032 attainment year to 2031.<sup>108</sup> Attachment J (“Calculation of Cumulative Potential Emission Reductions for Possible Reasonably Available Control Measures (RACM)”) of the 2020 Plan presents the cumulative potential RACM reductions in Table J–1, “Calculation of Cumulative Potential Emission Reductions for Possible Reasonably Available Control Measures (RACM).” When taken together, all potential RACM reductions of VOC and NO<sub>x</sub> that the District and CARB evaluated amount to approximately 0.6 tpd VOC and 0.7 tpd NO<sub>x</sub>. The potential RACM for combined VOC and NO<sub>x</sub>, 1.3 tpd potential RACM reduction falls far short of the 2015 ozone RACM target (for combined VOC and NO<sub>x</sub>), 6.0 tpd. The District therefore concludes that collectively, there is not enough potential RACM reductions to advance the attainment date for the 2015 ozone NAAQS.

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

As described in Section III.B.2.a. of this document, the District already implements many rules to reduce VOC and NO<sub>x</sub> emissions from stationary and area sources in the San Diego County area. For the 2020 Plan, the District evaluated a range of potentially available measures. We find that the process followed by the District in the 2020 Plan to identify additional stationary and area source RACM is generally consistent with the EPA's recommendations in the General Preamble, that the District's evaluation of potential measures is appropriate, and that the District has provided reasoned justifications for rejection of measures deemed not reasonably available.

With respect to mobile sources, CARB's current program addresses the full range of mobile sources in the San Diego County area through regulatory programs for both new and in-use vehicles. With respect to TCMs, we find that the District's process for identifying additional TCM RACM and its conclusion that the TCMs being implemented in the San Diego County area (*i.e.*, the TCMs listed in Attachment H of the 2020 Plan) represents all TCM RACM to be reasonably justified and supported. Further, we find that the District's cumulative analyses appropriately sum the various sources of potential RACM, and we agree with the District's conclusion that, taken together, all potential RACM would advance neither the 2026 modeled attainment year for the 2008 ozone NAAQS, nor the 2032 modeled attainment year for the 2015 ozone NAAQS. Based on our review of these RACM analyses and the District's and CARB's adopted rules, we propose to find that there are currently no additional RACM that would advance attainment of either the 2008 ozone NAAQS or the 2015 ozone NAAQS in the San Diego County area, and that the 2020 Plan provides for the implementation of all RACM as required by CAA section 172(c)(1), 40 CFR 51.1112(c) and 40 CFR 51.1312(c).

#### C. Attainment Demonstration

##### 1. Statutory and Regulatory Requirements

An attainment demonstration consists of: (1) technical analyses, such as base year and future year modeling, to locate and identify sources of emissions that are contributing to violations of the ozone NAAQS within the nonattainment area (*i.e.*, analyses related to the emissions inventory for

<sup>104</sup> Id., Section 4.2.1.5, “Identifying Potential RACM for Mobile Sources and Consumer Products,” 61, and Attachment I, “CARB Analyses of Potential Additional Mobile Source and Consumer Products Control Measures.”

<sup>105</sup> Id., Attachment A–1, Table A–1.

<sup>106</sup> Id., Table 4–3, “Top Ten Categories of VOC Emissions in 2032 (Non-Mobile),” and Table 4–4, “Top Ten Categories of NO<sub>x</sub> Emissions in 2032 (Non-Mobile).”

<sup>107</sup> Emissions inventory source categories are represented by a 14-digit emission inventory code (EIC) for area and mobile sources.

<sup>108</sup> 2020 Plan, Section 4.2.1.7, “RACM Cumulative Analysis,” p. 74.

the nonattainment area and the emissions reductions necessary to attain the standards; (2) a list of adopted measures (including RACT controls) with schedules for implementation and other means and techniques necessary and appropriate for demonstrating RFP and attainment as expeditiously as practicable but no later than the outside attainment date for the area's classification; (3) a RACM analysis; and (4) contingency measures required under sections 172(c)(9) and 182(c)(9) of the CAA that can be implemented without further action by the state or the EPA to cover emissions shortfalls in RFP and failures to attain.<sup>109</sup> In this section, we address the first two components of the attainment demonstration—the technical analyses and a list of adopted measures. We address the RACM component of the 2020 Plan attainment demonstration in Section III.B (Reasonably Available Control Measures Demonstration and Control Strategy) of this document and the contingency measures component of the attainment demonstration in Section III.F (Contingency Measures) of this document.

With respect to the technical analyses, section 182(c)(2)(A) of the CAA 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.

Areas classified Severe for the 2008 and 2015 ozone NAAQS must demonstrate attainment as expeditiously as practicable, but no later than 15 years after the effective date of designation to nonattainment. San Diego County was designated nonattainment for the 2008 ozone NAAQS effective July 20, 2012, and for the 2015 ozone NAAQS, the area was designated nonattainment effective August 3, 2018.<sup>110</sup> Accordingly the area

must demonstrate attainment of the 2008 ozone NAAQS by July 20, 2027; for the 2015 ozone NAAQS, the area must demonstrate attainment by August 3, 2033.<sup>111</sup> An attainment demonstration must show attainment of the standards by the ozone season (for San Diego County, the ozone season is the entire calendar year) prior to the attainment date, so in practice, Severe nonattainment areas must demonstrate attainment in 2026 for the 2008 ozone NAAQS and in 2032 for the 2015 ozone NAAQS.

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<sub>2.5</sub>, and Regional Haze” (“Modeling Guidance”).<sup>112</sup> 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 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 concentration due to future emissions reductions provides a relative response factor (RRF). Each monitoring site's RRF is applied to its monitored base year 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 analysis. A weight of evidence 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. Lastly, an unmonitored area analysis is used to predict areas of high ozone concentrations where air quality monitoring data is not available. This analysis utilizes interpolated ambient

data with modeled outputs to determine gradient-adjusted spatial fields. Section 4.7 of the Modeling Guidance provides guidelines for estimating design values at unmonitored grid cells.

The Modeling Guidance does not require a particular year to be used as the base year for 8-hour ozone plans.<sup>113</sup> The Modeling Guidance states that the most recent year of the National Emissions Inventory<sup>114</sup> 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.<sup>115</sup> 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.<sup>116</sup> Under the 2008 Ozone SRR and the 2015 Ozone SRR, all control measures needed for attainment must be implemented no later than the beginning of the attainment year ozone season.<sup>117</sup> The attainment year ozone season is defined as the ozone season immediately preceding a nonattainment area's maximum attainment date.<sup>118</sup>

## 2. Summary of the State's Submission

### a. Photochemical Modeling

The 2020 San Diego County Ozone SIP includes photochemical modeling for the 2008 and 2015 ozone NAAQS. CARB performed the air quality modeling for the 2020 Plan. The modeling relies on a 2017 base year and demonstrates attainment of the 2008 ozone NAAQS in 2026 and attainment of the 2015 ozone NAAQS in 2032.

<sup>113</sup> Modeling Guidance, Section 2.7.1, p. 35.

<sup>114</sup> The National Emissions Inventory (NEI) is an electronic database of criteria pollutant and precursor emissions data for the United States. State, local and tribal agencies contribute to the NEI every three years (2011, 2014, 2017, 2020, etc.). For more information about the NEI, see: <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei>.

<sup>115</sup> Modeling Guidance at Section 2.7.1, p. 35.

<sup>116</sup> See also CAA section 110(a)(2)(A).

<sup>117</sup> 40 CFR 51.1108(d) and 40 CFR 51.1308(d), respectively.

<sup>118</sup> 40 CFR 51.1100(h) for the 2008 ozone NAAQS and 40 CFR 51.1300(g), for the 2015 ozone NAAQS.

<sup>109</sup> 78 FR 34178, 34184 (June 6, 2013) (proposed rule for implementing the 2008 ozone NAAQS), codified at 40 CFR 51.1108. For the 2015 ozone NAAQS, the EPA finalized modeling requirements at 40 CFR 51.1308.

<sup>110</sup> 77 FR 30087 (May 21, 2012) and 83 FR 25776 (June 4, 2018), respectively.

<sup>111</sup> 80 FR 12264 and 83 FR 62998, respectively.

<sup>112</sup> Modeling Guidance, EPA 454/R-18-009, November 2018. Additional EPA modeling guidance can be found in 40 CFR 51 Appendix W, “Guideline on Air Quality Models,” 82 FR 5182 (January 17, 2017). These documents are available in the docket for this action and at [https://www.epa.gov/sites/default/files/2020-10/documents/o3-pm-rh-modeling\\_guidance-2018.pdf](https://www.epa.gov/sites/default/files/2020-10/documents/o3-pm-rh-modeling_guidance-2018.pdf) and <https://www.epa.gov/scram/clean-air-act-permit-modeling-guidance>, respectively.

As a general matter, the modeling for the 2020 Plan represents the most up-to-date photochemical modeling performed for the area, accounting for improved chemical gaseous and particulate mechanisms, improved computational resources and post-processing utilities, enhanced spatial and temporal allocations of the emissions inventory, and CARB's latest attainment demonstration methodology. Air quality modeling included in the 2020 Plan is described briefly in the plan's Sections 3.3 and 4.3 (for 2008 and 2015 ozone NAAQS, respectively) and in detail in the plan's Attachment K ("Attachment K" or "Modeling Protocol").<sup>119</sup> The 2020 Plan discusses its modeling emissions inventory in Attachment L, "Modeling Emissions Inventory," while Attachment M, "Weight of Evidence Demonstration for San Diego County," supplements the plan's modeling results with a weight of evidence analysis.

Attachment K of the 2020 Plan provides a description of model input preparation procedures, various model configuration options, and model performance statistics. The Modeling Protocol contains all the elements recommended in the Modeling Guidance, including: selection of model, time period to model, modeling domain, and model boundary conditions and initialization procedures; a discussion of emissions inventory development and other model input preparation procedures; model performance evaluation procedures; selection of days; and other details for calculating Relative Response Factors (RRFs). Attachment K also provides the coordinates of the modeling domain.

Attachment L of the 2020 Plan thoroughly describes the development of the modeling emissions inventory, including its chemical speciation, its spatial and temporal allocation, its temperature dependence, and quality assurance procedures.

The CARB Staff Report for the 2020 Plan provides additional information about CAA requirements that apply to the San Diego County area, including an attainment demonstration, emissions reductions commitments by CARB and the District and the source categories from which those reductions are expected to come.<sup>120</sup>

<sup>119</sup> 2020 Plan, Attachment K, "Modeling Protocol & Attainment Demonstration for the 2020 San Diego Ozone SIP" (March 2020).

<sup>120</sup> Emissions reduction commitments are described in the 2020 Plan (Sections 4.3.4 and 4.3.5; Attachment L, Section 3.9; and Table 4–9), the CARB Staff Report, and the District's and CARB's Board resolutions.

The modeling analysis uses version 5.2.1 of the Community Multiscale Air Quality (CMAQ) photochemical model, developed by the EPA. To prepare meteorological input for CMAQ, the Weather Research and Forecasting model version 3.9.1.1 (WRF) from the National Center for Atmospheric Research was used. 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 are adequate for modeling San Diego County ozone.

The WRF meteorological model results and performance statistics are described in Section K.3.1 ("Meteorological Model Evaluation") of Attachment K. The District and CARB evaluated the performance of the WRF model through a series of simulations and concluded that the daily WRF simulation for 2017 performed comparably to recent WRF modeling studies of ozone formation in California. The District's conclusions are supported by hourly time series, with performance statistics provided in Table K–7 for wind speed, temperature and relative humidity.

Ozone model performance and related statistics are described in the 2020 Plan Attachment K, Section K.3.2 ("Air Quality Model Evaluation"), which includes tables of statistics recommended in the Modeling Guidance for ozone for San Diego County. Model performance metrics provided in the 2020 Plan include mean bias, mean error, mean fractional bias, mean fractional error, normalized mean bias, normalized mean error, root mean square error, and correlation coefficient. In addition, plots were provided in evaluating the modeling: time-series plots comparing the predictions and observations, scatter plots for comparing the magnitude of the simulated and observed mixing ratios, box plots to summarize the time series data across different regions and averaging times, as well as frequency distributions.

After model performance for the 2017 base case was accepted, the model was applied to develop RRFs for the attainment demonstration.<sup>121</sup> This

<sup>121</sup> Modeling TSD, p. 26. Section 4.0 of the Modeling Guidance focuses on establishing guidelines for analyzing simulated emissions reductions for a future year with the goal of meeting the NAAQS. The Modeling Guidance recommends examining relative changes in design values through Relative Response Factors instead of absolute values to reduce the effect of model biases. In short, the RRF is a relative change in concentration with respect to a change in emissions between a base and future year, *i.e.*, the ratio of future year and base year modeled concentrations, and is multiplied by the base design value obtained

entailed running the model with the same meteorological inputs as before, but with adjusted emissions inventories to reflect the expected changes between 2017 and the attainment years 2026 and 2032. The base year, or "reference year" as referred to by the District and CARB, modeling inventory was the same as the inventory for the modeling base case, except for the exclusion of some emissions events that are random or cannot be projected to the future.<sup>122</sup> The 2026 and 2032 inventories project the base year into the future by including the effect of economic growth and emissions control measures. To develop the RRFs for the 8-hour ozone NAAQS, only the top 10 modeled days were used, consistent with the Modeling Guidance.<sup>123</sup>

The Modeling Guidance addresses attainment demonstrations with ozone NAAQS based on 8-hour averages, and for the 2008 and 2015 ozone NAAQS, the 2020 Plan carried out the attainment test procedure consistent with the Modeling Guidance. The RRFs were calculated as the ratio of future to base year concentrations. The resulting RRFs were then applied to two sets of reference design values. One set is for the period 2016–2018. Another set of design values was more current at the time of the state and District's analysis, the period 2017–2019. However, because that set of design values included data for 2019 that was not finalized at the time of the analysis, the earlier 2016–2018 set was used as an additional reference. The RRFs were applied to five monitoring sites in the San Diego County area to obtain future year 2026 and 2032 design values, summarized in Table K–13 and Table K–14 of the 2020 Plan, respectively. The modeled 2026 and 2032 ozone design values at the Alpine monitoring site (the highest of the county's monitors) are 0.074 ppm and 0.070 ppm, respectively; these values demonstrate attainment of the 2008 and the 2015 ozone NAAQS.

The 2020 Plan modeling demonstration includes a weight of evidence demonstration.<sup>124</sup> The weight of evidence demonstration in Attachment M of the 2020 Plan includes ambient ozone data and trends, precursor emissions trends and

from monitoring data at a particular site to obtain a future year design value at that site.

<sup>122</sup> The terms base year and reference year can be used interchangeably. To use consistent EPA terminology, the terms "base year" and "base case" are used in this document and correspond to the District's and CARB's use of the terms "reference year" and "base year," respectively.

<sup>123</sup> See Modeling Guidance at section 4.2.1.

<sup>124</sup> 2020 Plan, Attachment M, "Weight of Evidence Demonstration for San Diego County."

reductions, to complement the regional photochemical modeling analyses. The CARB Staff Report for the 2020 Plan concludes that the weight of evidence analysis supports the conclusions of the photochemical modeling.<sup>125</sup>

**b. Control Strategy for the 2008 Ozone NAAQS and for the 2015 Ozone NAAQS**

Continued air quality improvement in the San Diego County area is expected during the 2017 through 2032 timeframe because of the continued implementation of adopted District and CARB control measures and ongoing fleet turnover that replaces older more polluting mobile sources with newer, cleaner models and the downward emissions trends in the upwind South Coast Air Basin.

The control strategy for the San Diego County area for the 2008 ozone NAAQS relies on emissions reductions from

baseline (already-implemented) measures. The baseline control measures include the District's stationary source rules and CARB's mobile source and consumer products regulations adopted at the time of development of the 2020 Plan.

The control strategy for the San Diego County area for the 2015 ozone NAAQS also relies on emissions reductions from baseline (already-implemented) measures. However, unlike the 2008 ozone NAAQS attainment demonstration, the 2020 Plan concludes that baseline measures will not by themselves provide sufficient emissions reductions by 2032 to demonstrate attainment of the 2015 ozone NAAQS. Thus, the control strategy for the attainment demonstration for the 2015 ozone NAAQS includes commitments by CARB and the District to adopt and submit new control measures to achieve additional emissions reductions that the

modeling indicates are necessary to attain the 2015 ozone NAAQS in the San Diego County area by the attainment year (2032).

To provide for attainment of the 2015 ozone NAAQS by the attainment year (2032), CARB and the District commit in the 2020 Plan to reduce NO<sub>x</sub> emissions by 4.0 tpd<sup>126</sup> and by 1.7 tpd,<sup>127</sup> respectively. CARB expects to adopt and submit certain mobile source control measures developed pursuant to CARB's 2016 State Strategy to fulfill the 4.0 tpd NO<sub>x</sub> aggregate emissions reduction commitment for San Diego County by 2032. The specific control measures that CARB expects to adopt and submit are listed in Table 5 of this document. The District expects to adopt and submit certain stationary source control measures to fulfill the 1.7 tpd NO<sub>x</sub> aggregate emissions reduction commitment by 2032, as listed in Table 6 of this document.

**TABLE 5—SAN DIEGO COUNTY EXPECTED NO<sub>x</sub> EMISSIONS REDUCTIONS FROM CARB 2016 STATE SIP STRATEGY MEASURES**

2016 State strategy measure(s)	Control measure/regulation	2032 (tpd)
On-Road Heavy-Duty Vehicles: Low-NO <sub>x</sub> Engine Standard—California Action and Lower In-Use Emission Performance Level.	Heavy-Duty Engine and Vehicle Omnibus Regulation ("Low NO <sub>x</sub> Omnibus Regulation").	1.9
On-Road Heavy-Duty Vehicles: Last Mile Delivery .....	Advanced Clean Trucks Regulation .....	0.4
On-Road Heavy-Duty Vehicles: Lower In-Use Emission Performance Level	Heavy Duty Vehicle Inspection and Maintenance Regulation.	1.7
<b>Total Aggregate CARB Commitment .....</b>		<b>4.0</b>

Sources: 2016 State Strategy, Chapters 3 and 4; 2020 Plan, Table 4–9.

**TABLE 6—SAN DIEGO COUNTY EXPECTED NO<sub>x</sub> EMISSIONS REDUCTIONS FROM SDCAPCD CONTROL MEASURES**

Source type	Control measure/rule	2032 (tpd)
Stationary Reciprocating Internal Combustion Engines .....	Amended District Rule 69.4.1 .....	0.8
Small and Medium Boilers, Process Heaters, Steam Generators and Large Water Heaters.	New or Amended District Rules 69.2.1 and 69.2.2 .....	0.9
<b>Total Aggregate SDCAPCD Commitment .....</b>		<b>1.7</b>

Source: 2020 Plan, Section 4.3.4.

**c. Attainment Demonstration**

Table 7 of this document summarizes the attainment demonstration for the 2008 ozone NAAQS by listing the 2011 base year emissions level, the attainment year (2026) baseline emissions level, the modeled attainment (2026) emissions level, and the reductions that the District and CARB estimate will be achieved through implementation of baseline (*i.e.*,

adopted) measures taking into account area-wide growth, the growth increments for the military and SDIA, the District's ERC set-aside and the EMFAC2017 Adjustment Factors adjustment. The District and CARB have not made any emissions reductions commitments as part of the control strategy for attainment of the 2008 ozone NAAQS in San Diego County. The control strategy relies only on baseline measures. As shown in Table 7,

baseline measures are expected to reduce base year (2011) emissions of NO<sub>x</sub> by 43 percent and VOC emissions by 27 percent by the 2026 attainment year, notwithstanding area-wide growth, the growth increments for the military and SDIA, the District's ERC set-aside and the EMFAC2017 Adjustment Factors adjustment, and to attain the 2008 ozone NAAQS in San Diego County by that year.

<sup>125</sup> CARB Staff Report, 10.

<sup>126</sup> CARB Board Resolution 20–29, 6; 2020 Plan, section 4.3.5.

<sup>127</sup> 2020 Plan, section 4.3.4.

TABLE 7—SUMMARY OF SAN DIEGO COUNTY 2008 OZONE NAAQS ATTAINMENT DEMONSTRATION  
[Summer planning inventory, tpd]

Row		NO <sub>x</sub>	VOC
A	2011 Base Year Emissions Level <sup>a</sup>	126.5	137.5
B	2026 Attainment Year Baseline Emissions Level <sup>b</sup>	72.2	100.8
C	2026 Modeled Attainment Emissions Level <sup>c</sup>	72.2	100.8
D	Total Reductions Needed from 2011 Levels to Demonstrate Attainment (A – C)	54.3	36.7
E	Reductions from Baseline ( <i>i.e.</i> , adopted) Measures, net of growth, growth increment for military and SDIA, ERC set-aside and EMFAC2017 Adjustment Factors adjustment (A – B).	54.3	36.7
F	Reductions from District's Aggregate Emissions Reduction Commitment from 2020 Plan	0	0
G	Reductions from CARB's Aggregate Emissions Reduction Commitment from 2016 State Strategy	0	0
H	Total Reductions from District's and CARB's Commitments	0	0
I	Total Reductions from Baseline Measures and the District's and CARB's Commitments (E + H)	54.3	36.7
J	2026 Emissions with Reductions from Control Strategy (A – I)	72.2	100.8
	Attainment demonstrated?	Yes	Yes

<sup>a</sup>See Table 1 of this document. Includes emissions out to 100 NM from the coast.

<sup>b</sup>See Table 1 of this document. Includes emissions out to 100 NM from the coast. Year 2026 baseline emissions reflect area-wide growth, the growth increments for the military and SDIA, the District's ERC set-aside and the EMFAC2017 Adjustment Factors adjustment.

<sup>c</sup>2020 Plan, Section 3.3.4.

Table 8 of this document summarizes the attainment demonstration for the 2015 ozone NAAQS by listing the 2017 base year emissions level, the attainment year (2032) baseline emissions level, the modeled attainment (2032) emissions level, and the reductions that the District and CARB estimate will be achieved through implementation of baseline (*i.e.*, adopted) measures taking into account area-wide growth, the growth increments for the military and SDIA,

the District's ERC set-aside and the EMFAC2017 Adjustment Factors adjustment. Table 8 also shows the aggregate emissions reductions commitments (for year 2032) made by the District and CARB as part of the control strategy for attainment of the 2015 ozone NAAQS in San Diego County. As shown in Table 8, baseline measures are expected to reduce base year (2017) emissions of NO<sub>x</sub> by 27 percent and VOC emissions by 14 percent by the 2032 attainment year,

notwithstanding area-wide growth, the growth increments for the military and SDIA, the District's ERC set-aside and the EMFAC2017 Adjustment Factors adjustment. The District's and CARB's commitments would further reduce emissions of NO<sub>x</sub> by 2032 by an additional 5.7 tpd. Together, the baseline emissions reductions and the NO<sub>x</sub> emissions reduction commitments would provide for attainment of the 2015 ozone NAAQS by the attainment year (2032).

TABLE 8—SUMMARY OF SAN DIEGO COUNTY 2015 OZONE NAAQS ATTAINMENT DEMONSTRATION  
[Summer planning inventory, tpd]

Row		NO <sub>x</sub>	VOC
A	2017 Base Year Emissions Level <sup>a</sup>	94.5	113.8
B	2032 Attainment Year Baseline Emissions Level <sup>b</sup>	69.0	98.3
C	2032 Modeled Attainment Emissions Level <sup>c</sup>	63.3	98.3
D	Total Reductions Needed from 2017 Levels to Demonstrate Attainment (A – C)	31.0	15.5
E	Reductions from Baseline ( <i>i.e.</i> , adopted) Measures, net of growth, growth increment for military and SDIA, ERC set-aside and EMFAC2017 Adjustment Factors adjustment (A – B).	25.5	15.5
F	Reductions from District's Aggregate Emissions Reduction Commitment from 2020 Plan	1.7	0
G	Reductions from CARB's Aggregate Emissions Reduction Commitment from 2016 State Strategy	4.0	0
H	Total Reductions from District's and CARB's Commitments	5.7	0
I	Total Reductions from Baseline Measures and the District's and CARB's Commitments (E + H)	31.2	15.5
J	2032 Emissions with Reductions from Control Strategy (A – I)	63.3	98.3
	Attainment demonstrated?	Yes	Yes

<sup>a</sup>See Table 1 of this document. Includes emissions out to 100 NM from the coast.

<sup>b</sup>See Table 1 of this document. Includes emissions out to 100 NM from the coast. Year 2032 baseline emissions reflect area-wide growth, the growth increments for the military and SDIA, the District's ERC set-aside and the EMFAC2017 Adjustment Factors adjustment.

<sup>c</sup>2020 Plan, Section 4.3.4.

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

#### a. Photochemical Modeling

As discussed in Section III.A of this document, we are proposing to approve the base year emissions inventory and to find that the future year emissions projections in the 2020 San Diego County Ozone SIP reflect appropriate calculation methods and that the latest planning assumptions are properly

supported by SIP-approved stationary and mobile source control measures. Here, we address our findings for the modeling submitted with the 2020 Plan. Because of the importance of ozone transport from the South Coast to attainment in San Diego County, and the close interactions of the modeling for each area, we have considered the influence of South Coast on the modeling for San Diego County. Similar

and additional discussion for the South Coast can be found in our June 17, 2019 proposed action on the 2016 South Coast Ozone SIP.<sup>128</sup>

Based on our review of Attachment K <sup>129</sup> of the 2020 Plan, the EPA finds that the photochemical modeling is

<sup>128</sup> 84 FR 28132.

<sup>129</sup> Attachment K, "Modeling Protocol & Attainment Demonstration for the 2020 San Diego Ozone SIP," 2020 Plan.

adequate for purposes of supporting the attainment demonstration.<sup>130</sup> First, we note the extensive discussion of modeling procedures, tests, and performance analyses in the Methodology section of Attachment K and the good model performance. Second, we find the WRF meteorological model results and performance statistics, including hourly time series graphs of wind speed, direction, and temperature for San Diego County to be satisfactory and consistent with our Modeling Guidance.<sup>131</sup> Performance for wind speed, temperature, and relative humidity was evaluated from May to September 2017.<sup>132</sup> Geographically, winds are predicted most accurately along the coast. Accurate wind predictions in this region are important in simulating chemical transport in the San Diego Air Basin. Overall, the WRF simulation provided reasonable meteorological fields comparable to other WRF modeling studies and is sufficient for the attainment demonstration.

The model performance statistics for ozone are described in Attachment K Section K.3.2 and are based on the statistical evaluation recommended in the Modeling Guidance. Model performance was provided for 8-hour daily maximum ozone for San Diego County, separately for the Alpine site and the coastal sites. A geographical and temporal bias is shown in the time series, which sufficiently captures the variability in the maximum daily eight-hour average ozone concentration at the Alpine site, but overpredicts this concentration from mid-June to mid-July at the coastal sites. Through a series of sensitivity tests and consideration of other meteorological phenomena, the observed ozone concentrations during the overprediction period are likely

attributed to numerous meteorological factors affecting ozone transport (see, “Technical Support Document, Review of Attainment Modeling in the 2020 San Diego Ozone Plan (July 2022)” (“Modeling TSD”)).<sup>133</sup>

The 2020 Plan presents scatter plots of monitored and modeled ozone concentrations that also suggest that the Alpine site has the best correspondence between modeled and observed concentrations. This correspondence reflects the model’s capability of reliably predicting the high concentrations that result in exceedances frequently observed at the Alpine site, which are important for the top ten days that form the basis for the RRF calculation. However, the overprediction of absolute ozone concentrations does not mean that future concentrations will be overestimated. In addition, the weight of evidence analysis presented in Attachment M of the 2020 Plan provides additional information with respect to the sensitivity to emissions changes and further supports the model performance. We are proposing to find the air quality modeling adequate to support the attainment demonstrations for the 2008 and 2015 ozone NAAQS, based on reasonable meteorological and ozone modeling performance, and supported by the weight of evidence analyses. For additional information regarding the EPA’s analysis, please see the Modeling TSD for this action.

#### b. Control Strategy

As part of our evaluation of attainment demonstrations, we must find that the emissions reductions that are relied on for attainment are creditable and are sufficient to provide for attainment. As shown in Table 7 of this document, the 2020 Plan relies on baseline measures to achieve all the emissions reductions needed to attain

the 2008 ozone NAAQS by 2026. The baseline measures are approved into the SIP (with only minor exceptions) and, as such, the emissions reductions are fully creditable.

With respect to the attainment demonstration for the 2015 ozone NAAQS, we must also find that the emissions reductions that are relied on for attainment are creditable and are sufficient to provide for attainment. As shown in Table 8, the 2020 Plan relies on baseline measures to achieve a significant portion of the emissions reductions needed to attain the 2015 ozone NAAQS by 2032. The balance of the reductions needed for attainment is in the form of enforceable commitments to achieve aggregate tonnage reductions of NO<sub>x</sub> through adoption and implementation of more stringent emissions limitations contained in certain new or amended rules and regulations.

Table 9 of this document provides a summary of the status of the commitments made by the District and CARB in connection with the 2020 Plan. As shown in Table 9, the District and CARB have adopted all six of the rules or regulations that the agencies are relying on to meet their aggregate emissions reduction commitments. Four of the six rules or regulations have been submitted to the EPA for action as revisions to the California SIP. The rules or regulations are at various phases of implementation and at various stages of the process from adoption to approval by the EPA as part of the SIP. The commitments will be fulfilled once the EPA approves the rules or regulations as part of the SIP, assuming that the rules or regulations, as approved, provide NO<sub>x</sub> emissions reductions equal to or greater than the corresponding aggregate emissions reduction commitments by year 2032 in the San Diego County area.

TABLE 9—STATUS OF DISTRICT AND CARB AGGREGATE EMISSIONS REDUCTION COMMITMENTS FOR 2020 PLAN

Rule		Adoption date and district resolution of adoption	Submission date to the EPA as SIP revision	Most recent EPA SIP action
District Commitment				
Amendments to Rule 69.2.1 (Small Boilers, Process Heaters, and Steam Generators and Large Water Heaters.		July 8, 2020 (Resolution 20–118).	September 21, 2020 .....	Proposed rule published at 88 FR 48150 (July 26, 2023).
New Rule 69.2.2 (Medium Boilers, Process Heaters, and Steam Generators).		September 9, 2021 (Resolution 21–005).	March 9, 2022 .....	Final rule published at 88 FR 57361 (August 23, 2023).
Amendments to Rule 69.4.1 (Stationary Reciprocating Internal Combustion Engines).		July 8, 2020 (Resolution 20–120).	September 21, 2020 .....	No EPA action to date.
Regulations	Adoption date and CARB resolution of adoption	CAA Section 209 preemption waiver status	Submission date to the EPA as SIP revision	Most recent EPA SIP action
CARB Commitment:				

<sup>130</sup> The EPA’s review of the modeling and attainment demonstration is discussed in greater detail in the Modeling TSD for this action.

<sup>131</sup> Modeling Guidance, 30.

<sup>132</sup> Temperature, water vapor mixing ratio, and wind speed were evaluated in terms of normalized gross bias and normalized gross error.

<sup>133</sup> These factors are discussed in greater detail in Section 3.1.2 of the EPA’s Modeling TSD, included in the docket to this action.

Regulations	Adoption date and CARB resolution of adoption	CAA Section 209 preemption waiver status	Submission date to the EPA as SIP revision	Most recent EPA SIP action
Low-NO <sub>x</sub> Omnibus Regulation <sup>a</sup> .....	August 27, 2020 (Resolution 20–23).	Notice of Opportunity for Public Hearing and Comment published at 87 FR 35765 (June 13, 2022).	Not yet submitted .....	
Advanced Clean Trucks Regulation .....	June 25, 2020 (Resolution 20–19).	Notice of Decision published at 88 FR 20688 (April 6, 2023).	Not yet submitted .....	
Heavy-Duty Vehicle Inspection and Maintenance Regulation.	December 9, 2021 (Resolution 21–29).	Not preempted .....	December 7, 2022 .....	No EPA action to date.

<sup>a</sup> In July 2023, CARB proposed amendments to the Low-NO<sub>x</sub> Omnibus Regulation to provide additional flexibility for manufacturers of model year (MY) 2024–2026 heavy-duty engines.

The commitments made by the District and CARB through adoption of the 2020 Plan and 2016 State Strategy are similar to the enforceable commitments that the EPA has approved as part of attainment demonstrations in previous California air quality plans and that have withstood legal challenge.<sup>134</sup> The EPA has previously accepted enforceable commitments in lieu of adopted control measures in attainment demonstrations when the circumstances warrant them and when the commitments meet specific criteria. We believe that, with respect to the 2015 ozone NAAQS, circumstances warrant the consideration of enforceable commitments as part of the attainment demonstration for San Diego County. First, as shown in Table 8, a substantial portion of the emissions reductions needed to demonstrate attainment of the 2015 ozone NAAQS in the San Diego County area by 2032 will come from measures adopted prior to adoption and submittal of the 2020 Plan. As a result of these State and District efforts, most emissions sources in the San Diego County area are currently subject to stringent emissions limitations and other requirements, leaving few opportunities to further reduce emissions. In the 2020 Plan and 2016 State Strategy, the District and CARB identified potential control measures that could provide many of the additional emissions reductions needed for attainment. These are described in Section III.C.2.b of this document. However, the timeline needed to develop, adopt, and implement these measures went beyond the required submittal date for the

attainment demonstration for the San Diego County area for the 2015 ozone NAAQS. These circumstances warrant the District's and CARB's reliance on enforceable commitments as part of the attainment demonstrations for the 2015 ozone NAAQS.

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

#### i. Commitments Are a Limited Portion of Required Reductions

For the first factor, we look to see if the commitment addresses a limited portion of a statutory requirement and review the magnitude of emissions reductions needed to demonstrate attainment in a nonattainment area. Table 8 of this document shows emissions reductions needed to demonstrate attainment of the 2015 ozone NAAQS in San Diego County by 2032 and the aggregate emissions reductions commitments by the District and CARB. Historically, the EPA has approved SIPs with enforceable commitments in the vicinity of 10 percent of the total needed reductions for attainment.<sup>135</sup> Based on the values in Table 8 of this document, we note that the sum of the aggregate emission reductions commitments (5.7 tpd NO<sub>x</sub>) represents approximately 18 percent of the total emissions reductions (31.0 tpd NO<sub>x</sub>) needed for attainment (relative to

the 2017 base year). (The attainment demonstration for the 2015 ozone NAAQS for the San Diego County area does not rely on any commitments with respect to VOC emissions reductions.) While the value of 18 percent is higher than the EPA has generally found acceptable in the past, we note that all six of the rules or regulations that are relied upon to meet the aggregate emissions reduction commitments have already been adopted, and four of the six have been submitted to the EPA as revisions to the SIP. Taking into account the emissions reductions associated with rules or regulations already adopted and submitted (3.4 tpd NO<sub>x</sub>) reduces the remaining percentage associated with the commitments from 18 percent to approximately 7 percent, which is well within historical norms for EPA approvals of enforceable commitments. Thus, we find that the District's and CARB commitments in the 2020 Plan for San Diego County for the 2015 ozone NAAQS address a limited proportion of the required emissions reductions.

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

For the second factor, we consider whether the District and CARB are capable of fulfilling their commitments. All six rules or regulations that the District and CARB are relying on to meet the aggregate emissions reduction commitments have been adopted, and four have been submitted to the EPA as revisions to the California SIP. The emissions reductions associated with the four rules or regulations that have been adopted and submitted amount to approximately 3.4 tpd NO<sub>x</sub>, which represents approximately 60 percent of the overall aggregate commitment of 5.7 tpd NO<sub>x</sub>. As such, the State and District are well on their way to meeting their commitments. Thus, we believe that the State and District are capable of meeting their enforceable commitments to adopt and submit control measures that will reduce emissions to the levels needed for the 2015 ozone NAAQS in the San

<sup>134</sup> See *Committee for a Better Arvin v. EPA*, 786 F.3d 1169 (9th Cir. 2015) (approval of state commitments to propose and adopt emissions control measures and to achieve aggregate emissions reductions for San Joaquin Valley ozone and particulate matter plans upheld); *Physicians for Social Responsibility—Los Angeles v. EPA*, 9th Cir., memorandum opinion issued July 25, 2016 (approval of air district commitments to propose and adopt measures and to achieve aggregate emissions reductions for South Coast 1-hour ozone plan upheld).

<sup>135</sup> See our approval of these plans: San Joaquin Valley (SJV) PM<sub>10</sub> Plan at 69 FR 30006 (May 26, 2004); SJV 1-hour ozone plan at 75 FR 10420 (March 8, 2010); Houston-Galveston 1-hour ozone plan at 66 FR 57160 (November 14, 2001); South Coast 1997 8-hour ozone plan at 77 FR 12674 (March 1, 2012); and South Coast 1-hour ozone plan at 79 FR 52526 (September 3, 2014).

Diego County area by the 2032 attainment year.

iii. The Commitment Is for a Reasonable and Appropriate Timeframe

For the third and final factor, we consider whether the commitment is for a reasonable and appropriate period of time. All six rules or regulations that the District and State are relying on to meet the commitments have been adopted, and four have been submitted to the EPA as revisions to the California SIP. The District and CARB have committed to take the necessary actions and to achieve the remaining reductions by 2032. We believe that this period is appropriate given the technological and economic challenges associated with the rules and regulations adopted to achieve these reductions. In addition, these reductions are not needed to meet RFP targets for the 2015 ozone NAAQS. Thus, the commitments are for a reasonable and appropriate period of time.

The reductions of NO<sub>x</sub> and VOC in the area, detailed in the control strategy in the 2020 Plan, allow for expeditious attainment of both the 2008 and 2015 ozone NAAQS in the San Diego County area. The attainment years chosen by the District comport with those required by the Act for a Severe ozone nonattainment area for the 2008 and 2015 ozone NAAQS. For the reasons described in this document and based on CARB's and the District's demonstration specific to the San Diego County area described in the 2020 Plan, we propose to find the District's control strategy acceptable for purposes of attaining the 2008 ozone NAAQS and the 2015 ozone NAAQS in the San Diego County area. For additional information, please see the Modeling 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 demonstrations for the 2008 ozone NAAQS and for the 2015 ozone NAAQS in the 2020 San Diego County Ozone SIP as meeting the requirements of CAA section 182(c)(2)(A), 40 CFR 51.1108 and 40 CFR 51.1308.

*D. Rate of Progress Plan and Reasonable Further Progress Demonstration*

1. Statutory and Regulatory Requirements

Requirements for RFP for ozone nonattainment areas are specified in CAA sections 172(c)(2), 182(b)(1), and 182(c)(2)(B). Under CAA section 171(1),

RFP is defined as meaning such annual incremental reductions in emissions of the relevant air pollutant as are required under part D ("Plan Requirements for Nonattainment Areas") of the CAA or as may reasonably be required by the EPA for the purpose of ensuring attainment of the applicable NAAQS by the applicable date. CAA section 182(b)(1) specifically requires that ozone nonattainment areas classified as Moderate or above demonstrate a 15 percent reduction in VOC between the years of 1990 and 1996. The EPA has typically referred to section 182(b)(1) as the rate of progress (ROP) requirement. For ozone nonattainment areas classified as Serious or higher, section 182(c)(2)(B) requires VOC reductions of at least 3 percent of baseline emissions per year, averaged over each consecutive three-year period, beginning six years after the baseline year until the attainment date. Under CAA section 182(c)(2)(C), a state may substitute NO<sub>x</sub> emissions reductions for VOC emissions reductions if such reductions would result in a reduction in ozone concentrations at least equivalent to that which would result from the amount of VOC emissions reductions otherwise required. Additionally, CAA section 182(c)(2)(B)(ii) allows an amount less than 3 percent of such baseline emissions each year if a state demonstrates to the EPA that its plan includes all measures that can feasibly be implemented in the area in light of technological achievability.

In the 2008 Ozone SRR, the EPA provides that areas classified Moderate or higher will have met the ROP requirements of CAA section 182(b)(1) if the area has a fully approved 15 percent ROP plan for the 1-hour or 1997 ozone NAAQS.<sup>136</sup> For such areas, the EPA interprets the RFP requirements of CAA section 172(c)(2) to require areas classified as Moderate to provide a 15 percent emissions reduction of ozone precursors within six years of the baseline year. Areas classified as Serious or higher must meet the RFP requirements of CAA section 182(c)(2)(B) by providing an 18 percent reduction of ozone precursors in the first 6-year period, and an average ozone precursor emissions reduction of 3 percent per year for all remaining 3-year periods thereafter.<sup>137</sup> The 2008 Ozone SRR allows substitution of NO<sub>x</sub> reductions for VOC reductions to meet

the CAA section 172(c)(2) and 182(c)(2)(B) RFP requirements.<sup>138</sup>

In the 2015 Ozone SRR, as with the 2008 Ozone SRR, the EPA provides that areas classified Moderate or higher will have met the ROP requirements of CAA section 182(b)(1) if the area has a prior, fully approved 15 percent ROP plan.<sup>139</sup> For such areas, the EPA interprets the RFP requirements of CAA section 172(c)(2) to require areas classified as Moderate to provide a 15 percent emissions reduction of ozone precursors within six years of the baseline year. Areas classified as Serious or higher must meet the RFP requirements of CAA section 182(c)(2)(B) by providing an 18 percent reduction of ozone precursors in the first 6-year period, and an average ozone precursor emissions reduction of 3 percent per year for all remaining 3-year periods thereafter.<sup>140</sup> The 2015 Ozone SRR allows substitution of NO<sub>x</sub> reductions for VOC reductions to meet the CAA section 172(c)(2) and 182(c)(2)(B) RFP requirements.<sup>141</sup>

Except as specifically provided in CAA section 182(b)(1)(C), emissions reductions from all SIP-approved, federally promulgated, or otherwise SIP-creditable measures that occur after the baseline year are creditable for purposes of demonstrating that the RFP targets are met. Because the EPA has determined that the passage of time has caused the effect of certain exclusions to be de minimis, the RFP demonstration is no longer required to calculate and specifically exclude reductions from measures related to motor vehicle exhaust or evaporative emissions promulgated by January 1, 1990; regulations concerning Reid vapor pressure promulgated by November 15, 1990; measures to correct previous RACT requirements; and measures required to correct previous inspection and maintenance (I/M) programs.<sup>142</sup>

The 2008 Ozone SRR requires the RFP baseline year to be the most recent calendar year for which a complete triennial inventory was required to be submitted to the EPA. For the purposes of developing RFP demonstrations for the 2008 ozone NAAQS, the applicable triennial inventory year is 2011.<sup>143</sup> The 2015 Ozone SRR similarly requires the RFP baseline year to be the most recent calendar year for which a complete

<sup>136</sup> Id.; 40 CFR 51.1110(a)(2)(i)(C) and 40 CFR 51.1110(a)(2)(ii)(B).

<sup>139</sup> 83 FR 62998, 63004 (December 6, 2018); 51.1310(a)(2).

<sup>140</sup> Id.

<sup>141</sup> Id.; 40 CFR 51.1310(a)(2)(i)(B) and 40 CFR 51.1310(a)(2)(ii)(B).

<sup>142</sup> 40 CFR 51.1110(a)(7) and 40 CFR 51.1310(a)(7).

<sup>143</sup> 40 CFR 51.1110(b).

<sup>136</sup> 80 FR 12264, 12271 (March 6, 2015); 40 CFR 51.1110(a)(2).

<sup>137</sup> Id.

triennial inventory was required to be submitted to the EPA.<sup>144</sup> For the purpose of developing RFP demonstrations for the 2015 ozone NAAQS, the applicable triennial inventory year is 2017.<sup>145</sup>

## 2. Summary of the State's Submission

For both the 2008 and 2015 ozone NAAQS, the 2020 Plan cites the EPA's 1997 approval of the 15 percent VOC-only ROP plan for the one-hour ozone NAAQS as the basis for concluding that the San Diego County area had met the 15 percent VOC-only ROP plan SIP requirement.<sup>146</sup>

For the RFP demonstration for the 2008 ozone NAAQS, the 2020 Plan includes updated inventories of ozone precursor emissions (VOC and NO<sub>x</sub>) for 2017, the first RFP milestone year and

the year from which future-year inventories are projected. As described further in Section III.A ("Emissions Inventories") of this document, the RFP baseline year of 2011 was, for the most part, backcast from the 2017 emissions inventories except for point sources, which are based on actual reported emissions from the individual facilities.

To develop the emissions inventories for remaining RFP milestone years (2020 and 2023) and the attainment year (2026), the District and CARB relied upon the same growth and control factors used in the attainment demonstration, and included certain growth increments for the military and SDIA and certain adjustments (such as ERCs and EMFAC2017 Adjustment Factors impacts), as further described in

Section III.A ("Emissions Inventories") of this document.

The RFP demonstration for the San Diego County area for the 2008 ozone NAAQS is provided in Section 3.2.2.3 of the 2020 Plan and is presented in Table 10 of this document. The RFP demonstration calculates future year VOC targets from the 2011 baseline, consistent with CAA section 182(c)(2)(B)(i), which requires reductions of "at least 3 percent of baseline emissions each year," and it substitutes NO<sub>x</sub> reductions for VOC reductions beginning in milestone year 2017 to meet VOC emissions targets.<sup>147</sup> As shown in Table 10, the 2020 Plan provides a demonstration of RFP for each milestone year as well as the attainment year for the 2008 ozone NAAQS.

**TABLE 10—RFP DEMONSTRATION FOR SAN DIEGO COUNTY FOR THE 2008 OZONE NAAQS**  
[Summer planning inventory, tpd or percent]

	VOC				
	2011	2017	2020	2023	2026
Baseline VOC Emissions (tpd) .....	136.6	112.9	107.0	102.4	99.7
Change in VOC since 2011 (tpd) .....		23.7	29.6	34.2	36.9
Change in VOC since 2011 (percent) .....		17.4%	21.7%	25.1%	27.0%
Required percentage change since 2011 .....		18%	27%	36%	45%
Shortfall (–)/Surplus (+) in VOC (percent) .....		– 0.6%	– 5.3%	– 10.9%	– 18.0%
	NO <sub>x</sub>				
	2011	2017	2020	2023	2026
Baseline NO <sub>x</sub> Emissions (tpd) .....	110.7	77.0	67.1	56.8	53.6
Change in NO <sub>x</sub> since 2011 (tpd) .....		33.7	43.6	53.9	57.1
Change in NO <sub>x</sub> since 2011 (percent) .....		30.5%	39.3%	48.7%	51.6%
NO <sub>x</sub> reductions since 2011 used for VOC substitution in this milestone year (percent) .....		0.6%	5.3%	10.9%	18.0%
NO <sub>x</sub> reductions since 2011 surplus after meeting VOC substitution needs in this milestone year (percent) .....		29.8%	34.0%	37.8%	33.6%
RFP shortfall (if any) (percent) .....		0%	0%	0%	0%
RFP met? .....		Yes	Yes	Yes	Yes

Source: 2020 Plan, Table 3–3.

For the RFP demonstration for the 2015 ozone NAAQS, the 2020 Plan includes updated inventories of ozone precursor emissions for 2017, which is the baseline year and the year from which future-year inventories are projected. To develop the emissions inventories for RFP milestone years (2023, 2026 and 2029) and the attainment year (2032), the District and CARB relied upon the same growth and control factors as used in the attainment

demonstration, and included certain growth increments for the military and SDIA and certain adjustments (such as ERCs and EMFAC2017 Adjustment Factors impacts), as further described in Section III.A ("Emissions Inventories") of this document.

The RFP demonstration for the San Diego County area for the 2015 ozone NAAQS is shown in Table 11 of this document. The RFP demonstration calculates future year VOC targets from the 2017 baseline, consistent with CAA

section 182(c)(2)(B)(i), which requires reductions of "at least 3 percent of baseline emissions each year," and it substitutes NO<sub>x</sub> reductions for VOC reductions beginning in milestone year 2023 to meet VOC emission targets.<sup>148</sup> For the San Diego County area, CARB concludes that the RFP demonstration meets the applicable requirements for each milestone year as well as the attainment year for the 2015 ozone NAAQS.

<sup>144</sup> 40 CFR 51.1310(b).

<sup>145</sup> 2015 Ozone SRR, 63005.

<sup>146</sup> 2020 Pan, Sections 3.2.2.1 and 4.2.2.1.

<sup>147</sup> NO<sub>x</sub> substitution is permitted under EPA regulations for the 2008 ozone NAAQS. See 40 CFR 51.1110(a)(2)(i)(C) and 40 CFR 51.1110(a)(2)(ii)(B); and 80 FR 12264, at 12271 (March 6, 2015).

<sup>148</sup> NO<sub>x</sub> substitution is permitted under EPA regulations for the 2015 ozone NAAQS. See 40 CFR 51.1310(a)(2)(i)(B) and 40 CFR 51.1310(a)(2)(ii)(B); and 83 FR 62998, at 63004 (December 6, 2018).

TABLE 11—RFP DEMONSTRATION FOR SAN DIEGO COUNTY FOR THE 2015 OZONE NAAQS  
[Summer planning inventory, tpd or percent]

	VOC				
	2017	2023	2026	2029	2032
Baseline VOC Emissions (tpd) .....	112.9	102.4	99.7	98.2	97.2
Change in VOC since 2017 (tpd) .....		10.5	13.2	14.6	15.7
Change in VOC since 2017 (percent) .....		9.3%	11.7%	13.0%	13.9%
Required percentage change since 2017 .....		18%	27%	36%	45%
Shortfall (–)/Surplus (+) in VOC (percent) .....		– 8.7%	– 15.3%	– 23.0%	– 31.1%
	NO <sub>x</sub>				
	2017	2023	2026	2029	2032
Baseline NO <sub>x</sub> Emissions (tpd) .....	77.0	56.8	53.6	51.3	49.7
Change in NO <sub>x</sub> since 2017 (tpd) .....		20.2	23.4	25.6	27.3
Change in NO <sub>x</sub> since 2017 (percent) .....		26.3%	30.4%	33.3%	35.5%
NO <sub>x</sub> reductions since 2017 used for VOC substitution in this milestone year (percent) .....		8.7%	15.3%	23.0%	31.1%
NO <sub>x</sub> reductions since 2017 surplus after meeting VOC substitution needs in this milestone year (percent) .....		17.6%	15.1%	10.3%	4.3%
RFP shortfall (if any) (percent) .....		0%	0%	0%	0%
RFP met? .....		Yes	Yes	Yes	Yes

Source: 2020 Plan, Table 4–5.

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

In 1997, the EPA approved a 15 percent ROP plan for San Diego County for the 1-hour ozone NAAQS.<sup>149</sup> The San Diego County nonattainment areas for the 2008 and 2015 ozone NAAQS are essentially the same geographic area as the nonattainment area for the 1-hour ozone NAAQS, and thus, we agree with the conclusion in the 2020 Plan that the ROP requirements of CAA section 182(b)(1) for the San Diego County area have been met and that, as a result, there is no need to demonstrate another 15 percent reduction in VOC for this area.

The RFP demonstrations in the 2020 Plan derive from the same emissions inventories as presented in Section III.A (“Emissions Inventories”) of this

document. In Section III.A, we are proposing to approve the 2011 and 2017 base year emissions inventories for the 2008 and 2015 ozone NAAQS, respectively. With respect to the future year emissions baseline projections, as further explained in Section III.A of this document, we have reviewed the growth and control factors and find them acceptable and conclude that the future baseline emissions projections in the 2020 Plan reflect appropriate calculation methods and the latest planning assumptions and appropriately account for the growth increments for the military and SDIA as well as the adjustments for ERCs and the EMFAC2017 Adjustment Factors. In addition, we have reviewed the calculations in Table 3–3 and Table 4–5 of the 2020 Plan and find that the District and CARB have used an

appropriate calculation method to demonstrate RFP.<sup>150</sup>

CARB provided support for substituting NO<sub>x</sub> reductions for VOC reductions in the San Diego County area in Attachment K to the 2020 Plan and supplemented that information in an attachment to an email to the EPA dated September 1, 2023.<sup>151</sup> Combining the information from Attachment K in the 2020 Plan with additional explanation and analysis in the attachment, CARB presents two approaches to understanding the relationship between the two ozone precursors, NO<sub>x</sub> and VOC, in the area. First, CARB presents a table comparing emissions of the precursors over time and the modeled ozone design value. This table is shown here as Table 12 of this document (replacing the term ROG for VOC).

TABLE 12—OZONE DESIGN VALUES IN SAN DIEGO COUNTY AND THE CORRESPONDING EMISSIONS OF NO<sub>x</sub> AND VOC IN THE SAN DIEGO COUNTY AREA

Scenario	Design value (ppb)	Emissions (tpd)	
		NO <sub>x</sub>	VOC
Base Year (2017) .....	83.0	77.0	116.0
Attainment Year (2032) .....	71.1	43.4	96.5
Attainment Year (2032) with a 10 percent reduction in NO <sub>x</sub> .....	69.9	39.1	96.5

Sources: 2020 Plan, Attachment K, Section K.3.5 (“NO<sub>x</sub> Sensitivity Analysis”); Attachment to September 1, 2023 email from CARB to the EPA.

<sup>149</sup> 62 FR 1150, 1183 (January 8, 1997).

<sup>150</sup> We note that the weight of evidence demonstration provided in Attachment M to the 2020 Plan generally supports the substitution of

NO<sub>x</sub> emissions reductions for VOC emissions reductions for the RFP demonstrations for the 2008 and 2015 ozone NAAQS. See Modeling TSD, at 32 and 33.

<sup>151</sup> Email dated September 1, 2023, from Chenxia Cai, CARB, with attachment, to John J. Kelly, EPA.

Table 12 of this document presents CARB's summary data regarding NO<sub>x</sub> sensitivity in the area, including the emissions of NO<sub>x</sub> and VOC for the 2015 ozone NAAQS base year (2017) and the future attainment year (2032), as well as the measured 2017 ozone design value (83.0 ppb) and the predicted 2032 design value (71.1 ppb) with emissions reflecting business-as-usual, that is, without further emissions reductions. The fourth row of the table shows the DV predicted for the 2032 attainment year if there were an additional NO<sub>x</sub> reduction of ten percent from the business-as-usual scenario. When NO<sub>x</sub> emissions in the area are modeled at 39.1 tpd, the modeled design value for the area is 69.9 ppb, a design value that meets the 2015 ozone NAAQS. DVs are approximately linear with respect to the corresponding NO<sub>x</sub> emissions in Table 12, indicating that the reduction of NO<sub>x</sub> likely plays a dominant role in the attainment demonstration in the 2020 Plan.

Second, CARB presents information from a series of sensitivity tests for the area, in order to provide additional insight into the relative impact of reducing NO<sub>x</sub> and VOC on the modeled design value for the area. These simulations use different data than the 2020 Plan, including a different model year, domain, and a 2018 emissions inventory base year. However, the (2018) baseline emissions used for the simulations are similar enough to the baseline emissions (2017) used for the 2020 Plan that the results of the simulations provide useful information with which to evaluate the reliance on NO<sub>x</sub> substitution in the 2020 Plan for the RFP demonstrations for compliance with CAA section 182(c)(2)(C).<sup>152</sup>

The simulations were run from values of twenty percent to 100 percent of baseline emissions to produce "design value isopleths" at the Alpine monitoring site, the long-standing design value monitoring site in San Diego County. Such isopleths can be used to predict what the effect would be on the design value if either NO<sub>x</sub> or VOC emissions were held constant while the other ozone precursor were altered. Based on the isopleths produced by the simulations, a reduction of NO<sub>x</sub> of 40 percent (from 2018 baseline emissions) results in a decrease in the design value (from 2018)

at the Alpine monitoring site to the level of the 2008 ozone NAAQS whereas the same decrease in the design value requires a 60 percent decrease in VOC emissions (from 2018 baseline emissions). The isopleths that were produced by these simulations indicate that the design value in this area is more sensitive to decreases in NO<sub>x</sub>, and that the effect is more pronounced at lower NO<sub>x</sub> emissions. For example, if NO<sub>x</sub> emissions were held constant at 20 percent of the 2018 baseline, a change in VOC levels has almost no effect on the design value modeled for the area (in this case, around 60 ppb), whereas at a design value of 70.9 ppb, the design value is noticeably dependent on both pollutants, but still more sensitive to NO<sub>x</sub>. This isopleth indicates that NO<sub>x</sub> control is more effective than VOC control in the area on both a percentage and a per ton basis. As such, we find that the reliance on NO<sub>x</sub> substitution for RFP demonstration purposes in the 2020 Plan to be consistent with the requirements of CAA section 182(c)(2)(C).

For these reasons, we have determined that the 2020 Plan demonstrates RFP in each milestone year, as well as in each attainment year (2026 for the 2008 ozone NAAQS and 2032 for the 2015 ozone NAAQS), consistent with applicable CAA requirements and EPA guidance and rulemakings. We therefore propose to approve the RFP demonstrations for the San Diego County area for the 2008 ozone NAAQS and for the 2015 ozone NAAQS under sections 172(c)(2), 182(b)(1) and 182(c)(2)(B) of the CAA, 40 CFR 51.1110(a)(2), 40 CFR 51.1110(a)(2)(i) and (ii), 40 CFR 51.1310(a)(2) and 40 CFR 51.1310(a)(2)(ii).

#### *E. Transportation Control Strategies and Measures To Offset Emissions Increases From Vehicle Miles Traveled*

##### **1. Statutory and Regulatory Requirements**

Section 182(d)(1)(A) of the Act requires, in relevant part, a state to submit, for each area classified as Severe or above, a SIP revision that "identifies and adopts specific enforceable transportation control strategies and transportation control measures to offset any growth in emissions from growth in vehicle miles traveled or number of vehicle trips in such area." <sup>153</sup> Herein, we use "VMT" to

refer to vehicle miles traveled and refer to the related SIP requirement as the "VMT emissions offset requirement." In addition, we refer to the SIP revision intended to demonstrate compliance with the VMT emissions offset requirement as the "VMT emissions offset demonstration." The 2008 and 2015 SRRs extend the VMT emissions offset requirement to Severe and above areas for the 2008 and 2015 ozone NAAQS at 40 CFR 51.1102 and 40 CFR 51.1302, respectively.

In *Association of Irrigated Residents v. EPA*, the Ninth Circuit ruled that additional transportation control measures 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.<sup>154</sup> In response to the court's decision, in August 2012, the EPA issued guidance 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").<sup>155</sup>

The August 2012 Guidance discusses the meaning of "transportation control strategies" (TCSs) and "transportation control measures" (TCMs) and recommends that both TCSs and TCMs be included in the 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

and, as necessary, in combination with other emission reduction requirements, to demonstrate RFP and attainment. For more information on the EPA's interpretation of the three elements of section 182(d)(1)(A), see 77 FR 58067 at 58068 (September 19, 2012) (proposed withdrawal of approval of South Coast VMT emissions offset demonstrations). In Section III.E of this document, we address the first element of CAA section 182(d)(1)(A) (*i.e.*, the VMT emissions offset requirement). In Sections III.C and III.D of this document, we propose to approve the attainment demonstrations and RFP demonstrations, respectively, for the 2008 ozone NAAQS and for the 2015 ozone NAAQS in the San Diego County area. Compliance with the second and third elements of section 182(d)(1)(A) is predicated on final approval of the attainment and RFP demonstrations.

<sup>154</sup> See *Association of Irrigated Residents v. EPA*, 632 F.3d 584, at 596–597 (9th Cir. 2011), reprinted as amended on January 27, 2012, 686 F.3d 668, further amended February 13, 2012 ("Association of Irrigated Residents").

<sup>155</sup> EPA, "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, <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ4X.PDF?Dockey=P100EZ4X.PDF>.

<sup>152</sup> For example, the 2017 baseline emissions in the 2020 Plan for the San Diego County nonattainment area are 77 tpd for NO<sub>x</sub> and 113 tpd for VOC (see Table 1 of this document—not including emissions beyond three NM from the coast), whereas the 2018 baseline emissions used for the simulations are 75 tpd for NO<sub>x</sub> and 112 tpd for VOC.

<sup>153</sup> CAA section 182(d)(1)(A) includes three separate elements. In short, under section 182(d)(1)(A), states are required to adopt transportation control strategies and measures to offset growth in emissions from growth in VMT,

programs, alternative fuel programs, other technology-based measures, and TCMs) that would fit within the regulatory definition of “control strategy.”<sup>156</sup> A TCM is defined at 40 CFR 51.100(r) as “any measure that is directed toward reducing emissions of air pollutants from transportation sources,” including, but not limited to, those listed in section 108(f) of the Clean Air Act. TCMs generally refer to programs intended to reduce VMT, number of vehicle trips, or traffic congestion, such as programs for improved public transit, designation of certain lanes for passenger buses and high-occupancy vehicles, and trip reduction ordinances.

The August 2012 Guidance explains how states may demonstrate that the VMT emissions offset requirement is satisfied in conformance with the Court’s ruling in *Association of Irrigated Residents*. Under the August 2012 Guidance, states would develop one emissions inventory for the base year and three different emissions inventory scenarios for the attainment year.<sup>157</sup> The base year on-road VOC emissions should be calculated using VMT in that year, and they 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 that 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. This represents a “no action” scenario. Emissions in the attainment year in this scenario may be lower than those in the base year due to the fleet that was on the road in the base year gradually being replaced through fleet turnover; however, provided VMT and/or numbers of vehicle trips in fact increase by the attainment year, they would still

likely be higher than they would have been assuming VMT had held constant.

The second of the attainment year’s emissions calculations would assume that no new TCSs or TCMs beyond those already credited have been put in place since the base year, but it would also assume that there was no growth in VMT and trips between the base year and attainment year. This estimate reflects the hypothetical emissions level that would have occurred if no further TCMs or TCSs had been put in place and if VMT and trip levels had held constant since the base year. Like the “no action” attainment year estimate, emissions in the attainment year may be lower than those in the base year due to the fleet that was on the road in the base year gradually being replaced by cleaner vehicles through fleet turnover, but in this case they would not be influenced by any growth in VMT or trips. This emissions estimate would reflect a ceiling on the attainment emissions that should be allowed to occur under the statute as interpreted by the Court in *Association of Irrigated Residents* 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. This represents a “VMT offset ceiling” scenario. These two hypothetical status quo estimates are necessary steps in identifying the target level of emissions from which states would determine whether further TCMs or TCSs, beyond those that have been adopted and implemented, would need to be adopted and implemented in order to fully offset any increase in emissions due solely to VMT and trips identified in the “no action” scenario.

Finally, the state would present the emissions that are expected to occur in the area’s attainment year after taking into account reductions from all enforceable TCSs and TCMs. 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 and TCMs implemented by the attainment year would be sufficient to

fully offset the identified hypothetical growth in emissions.

If, instead, the estimated projected actual attainment year emissions are still greater than the ceiling that was 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 further offset the growth in emissions. The additional TCSs or TCMs would need to bring the actual emissions down to at least the VMT offset ceiling estimated in the second of the attainment year calculations, in order to meet the VMT offset requirement of section 182(d)(1)(A) as interpreted by the Court.

## 2. Summary of State’s Submission

CARB prepared the VMT emissions offset demonstration for San Diego County for the 2008 ozone NAAQS and for the 2015 ozone NAAQS. The District referenced the State’s demonstration in Sections 3.1.3 and 4.1.3 of the 2020 Plan and included the demonstration itself in Attachment N (“VMT Offset Demonstration for San Diego County”).<sup>158</sup> In addition to the VMT emissions offset demonstration, Attachment N of the 2020 Plan includes two appendices—one listing the TCSs adopted by CARB since 1990 and another listing the TCMs adopted by SANDAG (as of 2018) in San Diego County.<sup>159</sup> Based on the demonstration included as Attachment N of the 2020 Plan, the District concludes that the TCSs and TCMs identified in Attachment N offset the growth in emissions due to growth in VMT, thus satisfying the VMT emissions offset requirement for both the 2008 and 2015 ozone NAAQS.

In Attachment N of the 2020 Plan, CARB presents the VMT offset demonstration for the area. For this demonstration, CARB used EMFAC2017, the latest EPA-approved motor vehicle emissions model for California available at the time the 2020 Plan was developed.<sup>160</sup> The EMFAC2017 model estimates the on-road 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 EMFAC2017 model combines trip-based VMT and speed distribution data from the regional transportation planning

<sup>156</sup> See, *e.g.*, 40 CFR 51.100(n).

<sup>157</sup> See the August 2012 Guidance for specific details on how states might conduct the calculations.

<sup>158</sup> 2020 Plan, pp. 37, 57 and N–1.

<sup>159</sup> 2020 Plan, Attachment N, Appendix A–1, “State of California Motor Vehicle Control Program (1990–Present); Appendix A–2, “Adopted Transportation Control Measures.”

<sup>160</sup> 84 FR 41717 (August 15, 2019).

agency (*i.e.*, SANDAG), starts data based on household travel surveys, and vehicle population data from the California Department of Motor Vehicles. These sets of data are combined with corresponding emissions 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. Emissions from these processes are thus directly related to VMT and vehicle trips, and CARB included these emissions in the calculations that provide the basis for the San Diego County VMT emissions offset demonstration. CARB did not include emissions from resting loss and diurnal loss processes in the analysis because such emissions are related to vehicle population, not to VMT or vehicle trips, and thus are not part of “any growth in emissions from growth in vehicle miles

traveled or numbers of vehicle trips in such area” under CAA section 182(d)(1)(A).

The San Diego County VMT emissions offset demonstration for the 2008 ozone NAAQS uses a 2011 base year. The base year for VMT emissions offset demonstration purposes should generally be the same base year used for nonattainment planning purposes. In Section III.A of this document, the EPA is proposing to approve the 2011 base year inventory for San Diego County for the purposes of the 2008 ozone NAAQS, and thus, CARB’s selection of 2011 as the base year for the area’s VMT emissions offset demonstration for the 2008 ozone NAAQS is appropriate.

The San Diego County VMT emissions offset demonstration for the 2008 ozone NAAQS also includes the three different attainment year scenarios (*i.e.*, no action, VMT offset ceiling, and

projected actual) described in Section III.E.1 of this document. The 2020 Plan provides a demonstration of attainment of the 2008 ozone NAAQS in San Diego County by the applicable attainment date, based on the controlled 2026 emissions inventory. As described in Section III.C of this document, the EPA is proposing to approve the attainment demonstration for the 2008 ozone NAAQS for San Diego County, and thus, we find CARB’s selection of year 2026 as the attainment year for the VMT emissions offset demonstration for the 2008 ozone NAAQS to be acceptable.

Table 13 of this document summarizes the relevant distinguishing parameters for each of the emissions scenarios and shows CARB’s corresponding VOC emissions estimates for the demonstration for the 2008 ozone NAAQS.

TABLE 13—VMT EMISSIONS OFFSET INVENTORY SCENARIOS AND RESULTS FOR 2008 OZONE NAAQS

Scenario	VMT (1,000/day)	Starts (trips) (1,000/day)	VOC emissions (tpd)
Base Year (2011) .....	82,640	11,596	33
No Action (2026) .....	87,279	12,278	12
VMT Offset Ceiling (2026) .....	82,640	11,625	11
Projected Actual (2026) .....	87,279	12,008	10

Sources: 2020 Plan, Tables N–1 and N–2; supplemental email dated April 27, 2023, from Nesamani Kalandiyur, CARB, with attachment to John J. Kelly, EPA.

For the base year scenario, CARB ran the EMFAC2017 model for the 2011 base year using VMT and starts data corresponding to that year. As shown in Table 13, CARB estimates San Diego County VOC emissions at 33 tpd in 2011.

For the “no action” scenario, CARB first identified the on-road motor vehicle control programs (*i.e.*, TCSs<sup>161</sup>) put in place since the base year and incorporated into EMFAC2017, and then ran EMFAC2017 with the VMT and starts data corresponding to the 2026 attainment year without the emissions reductions from the on-road motor vehicle control programs put in place after the base year. Thus, the no action scenario reflects the hypothetical VOC emissions in the attainment year if CARB had not put in place any additional TCSs after 2011. As shown in Table 13, CARB estimates the “no action” San Diego County VOC emissions at 12 tpd in 2026.

For the “VMT offset ceiling” scenario, CARB ran the EMFAC2017 model for the attainment year but with VMT and starts data corresponding to base year values. Like the no action scenario, the EMFAC2017 model was adjusted to

reflect the VOC emissions levels in the attainment years without the benefits of the post-base-year on-road motor vehicle control programs. Thus, the VMT offset ceiling scenario reflects hypothetical VOC emissions in San Diego County if CARB had not put in place any TCSs after the base year and if there had been no growth in VMT or vehicle trips between the base year and the attainment year.

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 estimates under the “VMT offset ceiling” scenario. Based on the values in Table 13, the hypothetical growth in emissions due to growth in VMT and trips in San Diego County would have been 1 tpd (*i.e.*, 12 tpd minus 11 tpd). This hypothetical difference establishes the level of VMT growth-caused emissions that need to be offset by the combination of post-baseline year TCSs and any necessary additional TCSs.

For the “projected actual” scenario calculation, CARB ran the EMFAC2017 model for the attainment year with VMT and starts data at attainment year values

and with the full benefits of the relevant post-baseline year motor vehicle control programs. For this scenario, CARB included the emissions benefits from TCSs put in place since the base year. Between 2000 and 2019, annual VOC emissions in San Diego County declined 48 percent, approximately 65 percent of which was due to reductions from light-duty passenger vehicles.<sup>162</sup> As shown in Table 13 of this document, on-road VOC emissions are projected to decline by more than two-thirds (from 33 tpd to 10 tpd), from the 2011 base year to the 2026 attainment year. The most significant measures reducing VOC emissions during this timeframe are the regulations included in the Advanced Clean Cars regulatory package, such as the Low Emission Vehicle (LEV) III regulations that establish increasingly stringent emission standards for both criteria pollutants and greenhouse gases for new passenger vehicles through the 2025 model year and the Zero-Emission

<sup>161</sup> 2020 Plan, Attachment N, table N–5.

<sup>162</sup> 2020 Plan, Attachment M, “Weight of Evidence Demonstration for San Diego County,” Table M–4.

Vehicle (ZEV) sales mandate regulations.<sup>163</sup>

As shown in Table 13, the projected actual attainment-year VOC emissions are 10 tpd. CARB compared this value against the corresponding VMT offset ceiling value to determine whether additional TCSs or TCMs would need to be adopted and implemented in order to offset any increase in emissions due solely to VMT and trips. Because the projected actual emissions are less than the corresponding VMT offset ceiling emissions, CARB concluded that the demonstration shows compliance with the VMT emissions offset requirement and that the adopted TCSs are sufficient to offset the growth in emissions from the growth in VMT and vehicle trips in the San Diego County area for the 2008 ozone NAAQS.

The San Diego County VMT emissions offset demonstration for the 2015 ozone NAAQS uses a 2017 base year. The base year for VMT emissions offset demonstration purposes should generally be the same base year used for nonattainment planning purposes. In Section III.A of this document, the EPA is proposing to approve the 2017 base year inventory for the San Diego County area for the purposes of the 2015 ozone NAAQS, and thus, CARB's selection of 2017 as the base year for the area's VMT emissions offset demonstration for the 2015 ozone NAAQS is appropriate.

The San Diego County area VMT emissions offset demonstration for the 2015 ozone NAAQS also includes the three different attainment year scenarios (*i.e.*, no action, VMT offset ceiling, and projected actual) described in Section III.E.1. The 2020 Plan provides a

demonstration of attainment of the 2015 ozone NAAQS in the San Diego County area by the applicable attainment date, based on the controlled 2032 emissions inventory. As described in Section III.C of this document, the EPA is proposing to approve the attainment demonstration for the 2015 ozone NAAQS for the San Diego County area, and thus, we find CARB's selection of year 2032 as the attainment year for the VMT emissions offset demonstration for the 2015 ozone NAAQS to be acceptable.

Table 14 of this document summarizes the relevant distinguishing parameters for each of the emissions scenarios and shows CARB's corresponding VOC emissions estimates for the demonstration for the 2015 ozone NAAQS.

TABLE 14—VMT EMISSIONS OFFSET INVENTORY SCENARIOS AND RESULTS FOR 2015 OZONE NAAQS

Scenario	VMT (1,000/day)	Starts (trips) (1,000/day)	VOC emissions (tpd)
Base Year (2017) .....	83,217	10,783	18
No Action (2032) .....	91,751	13,411	10
VMT Offset Ceiling (2032) .....	83,217	12,164	9
Projected Actual (2032) .....	91,751	13,130	8

Sources: 2020 Plan, Tables N–1 and N–2; supplemental email dated April 27, 2023, from Nesamani Kalandiyur, CARB, with attachment, to John J. Kelly, EPA.

For the base year scenario, CARB ran the EMFAC2017 model for the 2017 base year using VMT and starts data corresponding to that year. As shown in Table 14, CARB estimates San Diego County VOC emissions at 18 tpd in 2017.

For the “no action” scenario, CARB first identified the on-road motor vehicle control programs (*i.e.*, TCSs<sup>164</sup>) put in place since the base year and incorporated into EMFAC2017, and then ran EMFAC2017 with the VMT and starts data corresponding to the 2032 attainment year without the emissions reductions from the on-road motor vehicle control programs put in place after the base year. Thus, the no action scenario reflects the hypothetical VOC emissions in the attainment year if CARB had not put in place any additional TCSs after 2017. As shown in Table 14 of this document, CARB estimates the “no action” San Diego County VOC emissions at 10 tpd in 2032.

For the “VMT offset ceiling” scenario, CARB ran the EMFAC2017 model for the attainment year but with VMT and starts data corresponding to base year values. Like the no action scenario, the

EMFAC2017 model was adjusted to reflect the VOC emissions levels in the attainment years without the benefits of the post-base-year on-road motor vehicle control programs. Thus, the VMT offset ceiling scenario reflects hypothetical VOC emissions in San Diego County if CARB had not put in place any TCSs after the base year and if there had been no growth in VMT or vehicle trips between the base year and the attainment year.

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 estimates under the “VMT offset ceiling” scenario. Based on the values in Table 14 of this document, the hypothetical growth in emissions due to growth in VMT and trips in San Diego County would have been 1 tpd (*i.e.*, 10 tpd minus 9 tpd). This hypothetical difference establishes the level of VMT growth-caused emissions that need to be offset by the combination of post-baseline year TCSs and any necessary additional TCSs.

For the “projected actual” scenario calculation, CARB ran the EMFAC2017

model for the attainment year with VMT and starts data at attainment year values and with the full benefits of the relevant post-baseline year motor vehicle control programs. For this scenario, CARB included the emissions benefits from TCSs put in place since the base year. Between 2000 and 2019, annual VOC emissions in San Diego County declined 48 percent, approximately 65 percent of which was due to reductions from light-duty passenger vehicles.<sup>165</sup> Table 14 of this document shows that on-road VOC emissions are projected to decline by more than one half (from 18 tpd to 8 tpd), from the 2017 base year to the 2032 attainment year. Significant VOC emissions reductions during the 2017–2032 timeframe result from the ZEV provisions of the Advanced Clean Cars program.

As shown in Table 14 of this document, the projected actual attainment-year VOC emissions are 8 tpd. CARB compared this value against the corresponding VMT offset ceiling value to determine whether additional TCSs or TCMs would need to be adopted and implemented in order to offset any increase in emissions due solely to VMT and trips. Because the

<sup>163</sup> See also 2020 Plan, Attachment N, Table N–5.

<sup>164</sup> 2020 Plan, Attachment N, Table N–5.

<sup>165</sup> 2020 Plan, Table M–4.

projected actual emissions are less than the corresponding VMT offset ceiling emissions, CARB concluded that the demonstration shows compliance with the VMT emissions offset requirement and that the adopted TCSs are sufficient to offset the growth in emissions from the growth in VMT and vehicle trips in the San Diego County area for the 2015 ozone NAAQS.

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

Based on our review of the San Diego County VMT emissions offset demonstration in Attachment N of the 2020 Plan, we find CARB's analysis to be consistent with our August 2012 Guidance and consistent with the emissions and vehicle activity estimates provided by CARB in support of the 2020 Plan. We agree that CARB and SANDAG have adopted sufficient TCSs and TCMs to offset the growth in emissions from growth in VMT and vehicle trips in the San Diego County area for the purposes of both the 2008 ozone NAAQS and the 2015 ozone NAAQS. Therefore, we propose to approve the San Diego County area VMT emissions offset demonstration element of the 2020 San Diego County Ozone SIP as meeting the requirements of CAA section 182(d)(1)(A), 40 CFR 51.1102 and 40 CFR 51.1302.

### F. Contingency Measures

#### 1. Statutory and Regulatory Requirements

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. The SIP should contain trigger mechanisms for the contingency measures, specify a schedule for implementation, and indicate that the measure will be implemented without significant further action by the state or the EPA.<sup>166</sup>

<sup>166</sup> 70 FR 71612 (November 29, 2005); 2008 Ozone SRR, 80 FR 12264, 12285 (March 6, 2015); 2015 Ozone SRR, 83 FR 62998, 63026 (December 6, 2018).

Contingency measures must be designed so as to be implemented prospectively; already-implemented control measures may not serve as contingency measures even if they provide emissions reductions beyond those needed for any other CAA purpose.<sup>167</sup>

The purpose of contingency measures is to continue progress in reducing emissions while a state revises its SIP to meet the missed RFP requirement or to correct ongoing nonattainment. Neither the CAA nor the EPA's implementing regulations establish a specific level of emissions reductions that implementation of contingency measures must achieve, but the EPA's 2008 Ozone SRR and 2015 Ozone SRR reiterate the EPA's policy that contingency measures should provide for emissions reductions approximately equivalent to one year's worth of RFP, amounting to reductions of 3 percent of the baseline emissions inventory for the nonattainment area.<sup>168</sup> A state cannot rely on already-implemented measures to serve as contingency measures, and in addition, a state cannot rely on already-implemented measures to justify the adoption of a contingency measure or contingency measures that would achieve less than one year's worth of RFP to meet the contingency measures requirements of CAA sections 172(c)(9) and 182(c)(9) for the nonattainment area.<sup>169</sup> As part of the contingency measures SIP revision for a given area, the EPA expects states to explain the amount of anticipated emissions reductions that the contingency measures will achieve. In the event that a state is unable to identify and adopt contingency measures that will provide for approximately one year's worth of RFP, then the EPA recommends that the state provide a reasoned justification why the smaller amount of emissions reductions is appropriate.<sup>170</sup>

In March 2023, the EPA published notice of availability announcing 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 (DRAFT—3/17/23—Public Review Version)"

<sup>167</sup> See *Bahr v. EPA*, 836 F.3d 1218, 1235–1237 (9th Cir. 2016) ("*Bahr*") and *Sierra Club v. EPA*, 21 F.4th 815, 827–828 (D.C. Cir. 2021).

<sup>168</sup> 2008 Ozone SRR, 80 FR 12264, 12285 (March 6, 2015); 2015 Ozone SRR, 83 FR 62998, 63026 (December 6, 2018).

<sup>169</sup> See *Association of Irrigated Residents v. EPA*, 10 F.4th 937 (9th Cir. 2021) ("*AIR*").

<sup>170</sup> 81 FR 58010, 58067 (August 24, 2016).

(herein referred to as the "Draft Revised Contingency Measure Guidance") and opportunity for public comment.<sup>171</sup> The principal differences between the draft revised guidance and 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.

Under the draft revised guidance, the recommended level of emissions reductions that contingency measures should achieve would represent one year's worth of "progress" as opposed to one year's worth of RFP. One year's worth of "progress" is calculated by determining the average annual reductions between the base year emissions inventory and the projected attainment year emissions inventory, determining what percentage of the base year emissions inventory this amount represents, then applying that percentage to the projected attainment year emissions inventory to determine the amount of reductions needed to ensure ongoing progress if contingency measures are triggered.

With respect to the time period within which reductions from contingency measures should occur, the EPA previously recommended that contingency measures take effect within 60 days of being triggered, and that the resulting emissions reductions generally occur within one year of the triggering event. Under the draft revised guidance, in instances where there are insufficient contingency measures available to achieve the recommended amount of emissions reductions within one year of the triggering event, the EPA believes that contingency measures that provide reductions within up to two years of the triggering event would be appropriate to consider towards achieving the recommended amount of emissions reductions. The draft revised guidance does not alter the 60-day recommendation for the contingency measures to take initial effect.

#### 2. Summary of the State's Submission

The 2020 Plan addresses the contingency measures requirement in Section 3.4 for the 2008 ozone NAAQS, Section 4.4 for the 2015 ozone NAAQS and Attachment O ("Contingency Measures for San Diego County") to the plan. For both ozone NAAQS, the 2020 Plan anticipates the District's adoption of a revision to the District's architectural coatings rule (Rule 67.0.1)

<sup>171</sup> 88 FR 17571 (March 23, 2023).

to include a specific contingency provision that would narrow the small container exemption in the rule in the event that the area misses an RFP milestone or fails to attain the ozone NAAQS by the applicable attainment date. The District estimates that the anticipated contingency provision in the architectural rule would achieve 0.72 tpd of VOC reductions, *i.e.*, if triggered by the EPA's determination that the area failed to meet an RFP milestone or failed to attain the 2008 or 2015 ozone NAAQS by the applicable attainment date.<sup>172</sup> The estimated emissions reductions from the amended architectural coatings rule (0.72 tpd of VOC) represent approximately 18 percent of one year's worth of RFP for the 2008 ozone NAAQS and approximately 21 percent of one year's worth of RFP for the 2015 ozone NAAQS.<sup>173</sup>

For both ozone NAAQS, the 2020 Plan demonstrates compliance with the contingency measures requirements in CAA sections 172(c)(9) and 182(c)(9) by coupling the anticipated emissions reductions from the contingency provision in the architectural coatings rule with projected surplus VOC and NO<sub>x</sub> emissions reductions that are expected to occur due to ongoing State mobile source control programs in San Diego County, providing for approximately one year's worth of RFP in the years following RFP milestone and attainment years.<sup>174</sup> In this context, "surplus" emissions reductions refers to emissions reductions that are beyond those required to provide for RFP and attainment for the 2008 and 2015 ozone NAAQS.

Since submission of the 2020 Plan, the District has adopted the contingency provision in the District's architectural coatings rule (District Rule 67.0.1), and CARB has submitted the amended rule to the EPA as a revision to the California SIP. In late 2022, the EPA took final action to approve amended Rule 67.0.1.<sup>175</sup> In our final rule approving amended Rule 67.0.1, we concluded that the contingency provision in the amended rule (paragraph (b)(6) of the rule) meets the requirements for individual contingency measures under CAA sections 172(c)(9) and 182(c)(9). However, we also indicated that, while the amended rule meets the requirements for a stand-alone contingency measure, we were not

making any determination at that time as to whether the individual contingency measure is sufficient in itself for San Diego County to fully comply with the contingency measures requirements under CAA sections 172(c)(9) and 182(c)(9).<sup>176</sup>

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

Sections 172(c)(9) and 182(c)(9) require contingency measures to address potential failure to achieve RFP milestones or failure to attain the NAAQS by the applicable attainment date. The 2020 Plan was prepared and submitted following the *Bahr* decision and, thus, does not rely solely on surplus emissions reductions from already-implemented measures to demonstrate compliance with the contingency measures requirements, but rather, anticipated the revision of a District rule to include a specific contingency provision that would be designed to be both prospective and conditional. Since the 2020 Plan was submitted, the District has fulfilled the commitment in the 2020 Plan that the District amend the District's architectural coatings rule to include contingency provisions, and the EPA has approved the amended rule as a stand-alone contingency measure.

The 2020 Plan was, however, prepared and submitted prior to the *AIR* decision and relies on the surplus emissions reductions from already-implemented measures, not as a contingency measure per se, but as justification for adopting a contingency measure that would provide far less than the EPA's recommended amount of emissions reductions to meet the contingency measures requirements (*i.e.*, one year's worth of RFP). In doing so, the 2020 Plan takes an approach to meeting the contingency measures requirements that is essentially the same as the approach that was rejected in the *AIR* decision. Also, earlier this year, the EPA has published new draft guidance addressing the contingency measures requirements. The principal differences between the Draft Revised Contingency Measure Guidance and existing guidance on contingency measures relate to the EPA's recommendations concerning the specific amount of emission reductions that implementation of contingency measures should achieve, and the timing for when the emissions reductions from the contingency measures should occur.

In light of the change in circumstances arising from the *AIR*

decision and the EPA's Draft Revised Contingency Measure Guidance, we are deferring action on the contingency measures portion of the 2020 Plan at the present time to provide additional time for CARB and the District to supplement the contingency measures portion of the 2020 Plan with additional contingency measures and a reasoned justification (if the contingency measures do not provide for the amount of reductions recommended by the EPA), as needed, to meet the contingency measure requirements of CAA sections 172(c)(9) and 182(c)(9).

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

#### 1. Statutory and Regulatory Requirements

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

Actions involving Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding or approval are subject to the EPA's transportation conformity rule, codified at 40 CFR part 93, subpart A. Under this rule, metropolitan planning organizations in nonattainment and maintenance areas coordinate with state and local air quality and transportation agencies, the EPA, the FHWA, and the FTA to demonstrate that an area's regional transportation plans and transportation improvement programs conform to the applicable SIP. This demonstration is typically done by showing that estimated emissions from existing and planned highway and transit systems are less than or equal to the motor vehicle emissions budgets contained in all control strategy SIPs. Motor vehicle emissions budgets are generally established for specific years and specific pollutants or precursors. Ozone plans should identify motor vehicle emissions budgets for on-road emissions of ozone precursors (NO<sub>x</sub> and VOC) in the area for each RFP milestone year and, if the plan demonstrates attainment, the attainment year.<sup>177</sup>

For motor vehicle emissions budgets to be approvable, they must meet, at a minimum, the EPA's adequacy criteria

<sup>172</sup> 2020 Plan, Attachment O, p. O-1.

<sup>173</sup> The percentages are based on one year's worth of RFP, which is 3 percent of the 2011 VOC baseline emissions.

<sup>174</sup> 2020 Plan, Attachment O, p. O-7.

<sup>175</sup> 87 FR 78544 (December 22, 2022).

<sup>176</sup> *Id.*

<sup>177</sup> 40 CFR 93.102(b)(2)(i).

at 40 CFR 93.118(e)(4). To meet these requirements, the motor vehicle emissions budgets must be consistent with the attainment and RFP requirements and reflect all motor vehicle control measures contained in the attainment and RFP demonstrations.<sup>178</sup>

The EPA's process for determining adequacy of a transportation budget consists of three basic steps: (1) providing public notification of a SIP submission; (2) providing the public the opportunity to comment on the motor vehicle emissions budgets during a public comment period; and, (3) making a finding of adequacy or inadequacy.<sup>179</sup>

## 2. Summary of the State's Submission

The 2020 Plan includes motor vehicle emissions budgets for both the 2008 and the 2015 ozone NAAQS. For the 2008 ozone NAAQS, the 2020 Plan provides for motor vehicle emissions budgets for 2020 and 2023 RFP milestone years, and a 2026 attainment year. For the 2015 ozone NAAQS, the plan provides for motor vehicle emissions budgets for 2023, 2026 and 2029 RFP milestone years and the 2032 attainment year.

The motor vehicle emissions budgets in the 2020 Plan were calculated for an average summer day using EMFAC2017, the version of CARB's EMFAC model approved by the EPA for estimating emissions from on-road vehicles

operating in California at the time the 2020 Plan was developed.<sup>180</sup> The motor vehicle emissions budgets in the 2020 Plan reflect the transportation activity data provided by SANDAG including updated VMT and speed distribution data developed for the 2019 Federal Regional Transportation Plan.<sup>181</sup> The motor vehicle emissions budgets also reflect an upward adjustment to account for the EPA's SAFE 1 action<sup>182</sup> and are rounded up to the nearest tenth of a ton per day. The 2008 and 2015 ozone NAAQS motor vehicle emissions budgets for NO<sub>x</sub> and VOC in the 2020 Plan for the San Diego County area are shown in Table 15 and Table 16 of this document, respectively.

TABLE 15—MOTOR VEHICLE EMISSIONS BUDGETS FOR THE 2008 OZONE NAAQS IN THE SAN DIEGO COUNTY AREA  
[Summer planning inventory, tpd]

Budget year	VOC	NO <sub>x</sub>
2020 .....	16.3	28.1
2023 .....	13.6	19.3
2026 .....	12.1	17.3

Source: 2020 Plan, Table 3–1.

TABLE 16—MOTOR VEHICLE EMISSIONS BUDGETS FOR THE 2015 OZONE NAAQS IN THE SAN DIEGO COUNTY AREA  
[Summer planning inventory, tpd]

Budget year	VOC	NO <sub>x</sub>
2023 .....	13.6	19.3
2026 .....	12.1	17.3
2029 .....	11.0	15.9
2032 .....	10.0	15.1

Source: 2020 Plan, Table 4–1.

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

The EPA previously found the motor vehicle emissions budgets in the 2020 Plan to be adequate, using our adequacy criteria in 40 CFR 93.118(e)(4) and (5).<sup>183</sup> On June 4, 2021, the EPA announced the availability of the 2020 Plan and related motor vehicle emissions budgets on the EPA's transportation conformity website, requesting comments by July 6, 2021. The EPA received no comments from the public. By letter dated September 21, 2021, the EPA determined the 2020, 2023, 2026 motor vehicle emissions budgets for the 2008 ozone NAAQS and the 2023, 2026, 2029 and 2032 motor

vehicle emissions budgets for the 2015 ozone NAAQS were adequate for transportation conformity purposes.<sup>184</sup> On October 4, 2021, the notice of adequacy was published in the **Federal Register**.<sup>185</sup> Since the effective date of our adequacy finding, October 19, 2021, the U.S. Department of Transportation and the applicable metropolitan transportation organization, SANDAG, have been using the adequate motor vehicle emissions budgets for transportation conformity determinations for the area. The EPA is not required under its transportation conformity rule to find motor vehicle emissions budgets adequate prior to proposing approval of them, but in this

instance, we have completed the adequacy review of these motor vehicle emissions budgets prior to our proposed action on the 2020 Plan.

The EPA is proposing to approve the motor vehicle emissions budgets the 2020 Plan for transportation conformity purposes. The EPA has determined through its review of the 2020 Plan that the motor vehicle emissions budgets are consistent with emissions control measures in the SIP and the RFP and attainment demonstrations for the 2008 ozone NAAQS and the 2015 ozone NAAQS. We note that the on-road motor vehicle emissions estimates used for the RFP and attainment demonstrations in the 2020 Plan are based on

<sup>178</sup> 40 CFR 93.118(e)(4)(iii), (iv) and (v). For more information on the transportation conformity requirements and applicable policies on motor vehicle emissions budgets, please visit our transportation conformity website at: <https://www.epa.gov/state-and-local-transportation>.

<sup>179</sup> 40 CFR 93.118.

<sup>180</sup> The EPA approved the use of EMFAC2017 for use in SIP development and transportation conformity at 84 FR 41717 (August 15, 2019).

<sup>181</sup> 2020 Plan, endnote 130. SANDAG, *San Diego Forward: The 2019 Federal Regional Transportation Plan* (October 2019).

<sup>182</sup> 84 FR 51310 (September 27, 2019).

<sup>183</sup> The EPA Office of Transportation and Air Quality (OTAQ) maintains a website that lists motor vehicle emissions budgets we are reviewing or have reviewed for adequacy. See our OTAQ adequacy review web page: <https://www.epa.gov/state-and-local-transportation/adequacy-review-state-implementation-plan-sip-submissions-conformity>.

<sup>184</sup> Letter from Elizabeth J. Adams, Air and Radiation Division Director, EPA Region IX to Richard Corey, Executive Officer, CARB, dated September 21, 2021.

<sup>185</sup> 86 FR 54692, effective October 19, 2021.

transportation activity data developed for SANDAG's 2018 Regional Transportation Improvement Program whereas the motor vehicle emissions budgets are based on updated VMT and speed distribution data from SANDAG's 2019 Regional Transportation Plan, and thus the on-road motor vehicle estimates are not exactly the same as the corresponding motor vehicle emissions budgets. However, we have compared the on-road motor vehicle emissions used for the RFP and attainment demonstrations with the motor vehicle emissions budgets and find that the latter are numerically the same or slightly lower (by 0.1 to 0.4 tpd) for both VOC and NO<sub>x</sub> than the corresponding estimates used for the RFP and attainment demonstrations. Thus, the motor vehicle emissions budgets are conservative in that they reflect slightly less vehicle activity than the level of such activity assumed for the RFP and attainment demonstrations that we are proposing to approve in this document.

For the reasons discussed in Sections III.C and III.D of this document, we are proposing to approve the RFP and attainment demonstrations in the 2020 Plan for the 2008 and 2015 ozone NAAQS. The motor vehicle emissions budgets, as listed in Tables 15 and 16 of this document, are consistent with the RFP and attainment demonstrations, are clearly identified and precisely quantified, and meet all other applicable statutory and regulatory requirements, including the adequacy criteria in 40 CFR 93.118(e)(4). For these reasons, the EPA proposes to approve the motor vehicle emissions budgets in the 2020 Plan for years 2020, 2023, and 2026 for the 2008 ozone NAAQS (and shown in Table 15 of this document), as well as the motor vehicle emissions budgets in the 2020 Plan for years 2023, 2026, 2029 and 2032 (shown in Table 16 of this document), for the 2015 ozone NAAQS.

#### H. General Conformity Budgets

##### 1. Statutory and Regulatory Requirements

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

Section 176(c)(4) of the CAA establishes the framework for general

conformity. The EPA first promulgated general conformity regulations in November 1993.<sup>186</sup> In 2006, 2010, and again in 2016, the EPA revised the general conformity regulations.<sup>187</sup> The general conformity regulations ensure that federal actions not covered by the transportation conformity rule will not interfere with the SIP and encourage consultation between the federal agency and the state or local air pollution control agencies before or during the environmental review process, as well as public participation (e.g., notification of and access to federal agency conformity determinations and review of individual federal actions). In San Diego County, federal actions not covered by the transportation conformity rule are subject to the general conformity requirements in District Rule 1501 ("Conformity of General Federal Actions")<sup>188</sup> and in 40 CFR part 93, subpart B, to the extent the requirements in 40 CFR part 93, subpart B are not contained in District Rule 1501.<sup>189</sup>

The general conformity regulations in 40 CFR part 93, subpart B provide criteria and procedures for federal agencies to follow in determining general conformity for federal actions. The applicability analysis under 40 CFR 93.153 is used to find if a federal action requires a conformity determination for a specific pollutant. If a conformity determination is needed, federal agencies can use one of several methods to show that the federal action conforms to the SIP. In an area for which the EPA has not approved a revision to the relevant SIP since the area was designated or reclassified, a federal action may be shown to "conform" by demonstrating there will be no net increase in emissions in the nonattainment or maintenance area from the federal action. In an area with an approved SIP revision, conformity to the applicable SIP can be demonstrated in one of several ways. For actions where the direct and indirect emissions exceed the rates in 40 CFR 93.153(b), the federal action can include mitigation measures to offset the emissions increases from the federal action or can show that the action will conform by meeting any of the following requirements:

- showing that the net emissions increases caused by an action are included in the SIP;
- documenting that the state agrees to include the emissions increases in the SIP;
- offsetting the action's emissions in the same or nearby area of equal or greater classification; or
- providing an air quality modeling demonstration in some circumstances.

The general conformity regulations at 40 CFR 93.161 allow state and local air quality agencies working with federal agencies with large facilities (e.g., commercial airports, ports, and large military bases) that are subject to the general conformity regulations to develop and adopt an emissions budget for those facilities in order to facilitate future conformity determinations. Such a budget, referred to as a facility-wide emissions budget, may be used by federal agencies to demonstrate conformity as long as the total facility-wide budget level identified in the SIP is not exceeded.

A state or local agency responsible for implementing and enforcing the SIP can develop and adopt an emissions budget to be used for demonstrating conformity under 40 CFR 93.158(a)(1) so long as the budget meets certain criteria listed in 40 CFR 93.161(a). The requirements include: (1) the facility-wide budget must be for a set time period; (2) the budget must cover the pollutants or precursors of the pollutants for which the area is designated nonattainment or maintenance; (3) the budgets must be specific about what can be emitted on an annual or seasonal basis; (4) the emissions from the facility along with all other emissions in the area must not exceed the total SIP emissions budget for the nonattainment or maintenance area; (5) specific measures must be included to ensure compliance with the facility-wide budget, such as periodic reporting requirements or compliance demonstrations when the federal agency is taking an action that would otherwise require a conformity determination; (6) the budget must be submitted to the EPA as a SIP revision; and (7) the SIP revision must be approved by the EPA. Having or using a facility-wide emissions budget does not preclude a federal agency from demonstrating conformity in any other manner allowed by the conformity rule.

Once approved by the EPA, total direct and indirect emissions from federal actions in conjunction with all other emissions subject to general conformity from the facility that do not exceed the facility-wide budget are "presumed to conform" to the SIP and

<sup>186</sup> 40 CFR part 51, subpart W, and 40 CFR part 93, subpart B.

<sup>187</sup> 71 FR 40420 (July 17, 2006); 75 FR 17254 (April 5, 2010); and 81 FR 58010, 58162 (August 24, 2016).

<sup>188</sup> SDCAPCD Rule 1501 ("Conformity of General Federal Actions"), approved at 64 FR 19916 (April 23, 1999).

<sup>189</sup> 40 CFR 93.151.

do not require a conformity analysis.<sup>190</sup> However, if the total direct and indirect emissions from the federal actions in conjunction with the other emissions subject to general conformity from the facility exceed the budget, the action must be evaluated for conformity.<sup>191</sup>

## 2. Summary of the State's Submission

General conformity requirements are addressed in the 2020 Plan in Section 2.1.3, "Emissions Budgets." The 2020 Plan includes facility-wide emissions budgets (facility-wide budgets) that allow for increments of growth for military and airport facilities in the area. Further information supporting the military facility-wide budgets is included in the 2020 Plan's Attachment B, "Planned Military Projects Subject to General Conformity"; further information supporting airport facility-wide budgets is included in Attachment C, "Planned San Diego International Airport Projects Subject to General Conformity."

The EPA has reviewed facility-wide budgets for military facilities in San Diego County in the past, prior to the 2010 revisions to the EPA's general conformity regulations that expressly authorized such budgets. In 2003, the EPA proposed to approve the San Diego County redesignation request and maintenance plan (RRMP) for the 1979 1-hour ozone NAAQS.<sup>192</sup> We approved the RRMP later that year, redesignating the area to attainment for the 1-hour ozone NAAQS and approving a ten-year maintenance plan for the area.<sup>193</sup> Although our final action did not approve facility-wide budgets explicitly, expected growth of military facility emissions in the San Diego County area were included in the area's RRMP. In our proposed approval of the RRMP, we indicated that the "military growth

[general] conformity increment is 11.4 tpd NO<sub>x</sub> in 2005, 2010, and 2014," that is, over the ten-year period of the maintenance plan.<sup>194</sup> Likewise, the EPA approved the San Diego County RRMP for the 1997 ozone NAAQS, which included a military growth increment for years 2015, 2020 and 2025.<sup>195</sup>

In 2018, for the 2020 Plan, the Department of the Navy (DoN) and United States Marine Corps (USMC) developed updated projections of future annual emissions increases and decreases from anticipated military actions in San Diego County from 2018 through 2037.<sup>196</sup> NO<sub>x</sub> was estimated to increase by 8.34 tpd and VOC was expected to increase by 0.86 tpd from 2018 through 2037.<sup>197</sup> Previously, the DoN and USMC had estimated emissions would increase by 5.91 tpd NO<sub>x</sub> and 1.08 tpd VOC between 2011 and 2035.<sup>198</sup> For the 2020 Plan, the District conservatively took the higher of both pairs of numbers and, again, conservatively assumed that the entire anticipated increase through 2037 would occur in 2018. CARB incorporated that growth increment into the 2019 CARB CEPAM emissions inventories (Version 1.00) that are used to develop the RFP and attainment demonstrations in the 2020 Plan.

Specifically, the District and CARB incorporated a total growth projection of 8.34 tpd of NO<sub>x</sub> and 1.08 tpd of VOC emissions into the 2020 Plan and related RFP demonstrations and photochemical modeling for the attainment demonstrations. The modeling analysis CARB performed for the 2020 Plan indicates that the growth in military facility-related emissions is not expected to cause additional ozone violations.<sup>199</sup>

In Section 2.1.3.2 of the 2020 Plan, the District also accommodates facility-

wide budgets (in the form of growth increments) for SDIA in San Diego County. The San Diego County Regional Airport Authority (Airport Authority) developed an emissions inventory for SDIA that the District includes in the 2020 Plan as Attachment C. The SDIA emissions inventory includes emissions increases anticipated to occur at the airport from 2012 through 2040. As with the military growth increment, the District conservatively assumed that all emissions increases at SDIA would occur in 2018 and CARB included those emissions in their modeling.

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

The 2020 Plan's facility-wide budgets (*i.e.*, increments of growth) are included in Table 17 of this document for both the military and for SDIA expected emissions increases (hereafter, the "facilities"). At these levels of growth, CARB air quality modeling predicts that there will not be an increase in ozone exceedances.<sup>200</sup> These budgets represent emissions that are in addition to the baseline emissions projections in the 2020 Plan and that are built into the 2020 Plan as separate line items in the emissions inventories used for the RFP and attainment demonstrations. The purpose of the budgets is to accommodate anticipated federal actions by the military or by the federal agencies that permit, fund or approve actions at SDIA that would cause emissions increases greater than de minimis levels under the general conformity regulations. The de minimis level used to determine applicability of the general conformity requirements to federal actions in San Diego County is 25 tons per year of VOC or NO<sub>x</sub> based on the area's Severe classification for the 2008 and 2015 ozone NAAQS.<sup>201</sup>

TABLE 17—FACILITY-WIDE GENERAL CONFORMITY BUDGETS (INCREMENTS OF GROWTH) FOR THE DEPARTMENT OF THE NAVY AND UNITED STATES MARINE CORPS, AND FOR THE SAN DIEGO INTERNATIONAL AIRPORT IN SAN DIEGO COUNTY  
[Summer planning inventory, tpd]

Facility	VOC	NO <sub>x</sub>
DoN and USMC .....	1.08	8.34
SDIA .....	0.141	1.756

Source: 2020 Plan, pp. 18 and 19.

<sup>190</sup> 40 CFR 93.161(c).

<sup>191</sup> 40 CFR 93.161(d).

<sup>192</sup> 68 FR 13653 (March 20, 2003).

<sup>193</sup> 68 FR 37976 (June 26, 2003), effective July 28, 2003.

<sup>194</sup> 68 FR 13653, 13654.

<sup>195</sup> 78 FR 17902, at 17912 (March 25, 2013) (proposed approval of San Diego County RRMP for the 1997 ozone NAAQS); finalized at 78 FR 33230 (June 4, 2013).

<sup>196</sup> DoN and USMC report to SDCAPCD, "Department of Navy 2017 Mobile Source Baseline and Emissions Growth Increment Request for Submittal to the San Diego Air Pollution Control

District," Naval Facilities Engineering Command Southwest, San Diego, California, December 2018.

<sup>197</sup> 2020 Plan, Table B–2.

<sup>198</sup> 2020 Plan, Table B–1.

<sup>199</sup> 2020 Plan, p. 18.

<sup>200</sup> 2020 Plan, p. 19.

<sup>201</sup> District Rule 1501, section 1551.853(b)(1).

The EPA reviewed the facility-wide budgets (*i.e.*, increments of growth) for the facilities using the seven criteria listed for facility-wide budgets in 40 CFR 93.161(a). Criterion 1 is that the facility-wide budgets must be for a set time period. This criterion is satisfied by the duration of the growth projected by the military (out to 2037) and by the Airport Authority (out to 2040).

Criterion 2 is that the facility-wide budgets must cover the pollutants or precursors of the pollutants for which the area is designated nonattainment or maintenance. This criterion is satisfied because the area is designated nonattainment for the 2008 and the 2015 ozone NAAQS and ozone's precursors are VOC and NO<sub>x</sub>. Both precursors are addressed in the facility-wide budgets included in the 2020 Plan for the facilities, presented in Table 17 of this document. Criterion 3 is likewise satisfied in that it requires that facility-wide budgets include specific quantities allowed to be emitted on an annual or seasonal basis. Table 17 of this document includes specific quantities allowed to be emitted by the facilities. Criterion 4 is that the emissions from the facilities along with all other emissions in the area will not exceed the emission budget for the area. This criterion will be satisfied if the EPA finalizes the proposed approval of the RFP and attainment demonstrations in the 2020 Plan for the 2008 and 2015 ozone NAAQS because the 2020 Plan includes the facility-wide budgets and all other emissions in the area in the future-year emissions projections used for the RFP and attainment demonstrations.<sup>202</sup>

Criterion 5 is that there must be specific measures to ensure compliance with the budget, such as periodic reporting requirements or a compliance demonstration when the federal agency is taking an action that would otherwise require a general conformity determination. The District requested that the military and San Diego Regional Airport Authority each provide a written letter of commitment to track compliance with the facility-wide budgets and to make periodic reports to the District demonstrating compliance when they are taking actions that would otherwise require a general conformity determination. The requested letters of

commitment have been provided to the District.<sup>203</sup>

Criterion 6 is that the facility-wide budgets must be submitted to the EPA as a SIP revision. The 2020 Plan includes the facility-wide budgets shown in Table 17 of this document. The seventh and last criterion is that the SIP revision must be approved by the EPA. For the reasons stated in this section of this document, we propose to approve the general conformity budgets included in the 2020 Plan. If the EPA finalizes this action as proposed, criterion 7 will be satisfied.

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

In addition to the SIP requirements discussed in Sections III.A—III.H, of this document, the CAA includes certain other SIP requirements applicable to Severe ozone nonattainment areas, such as the San Diego County area. In Section III.I, we identify these other requirements and evaluate the compliance by the State and District with respect to them for the San Diego County area.

##### **1. Enhanced Vehicle Inspection and Maintenance Programs**

Section 182(b)(4) of the CAA requires states with ozone nonattainment areas classified under subpart 2 as Moderate to submit SIP revisions that provide for the implementation of a “Basic” vehicle inspection and maintenance (I/M) program in those areas. Section 182(c)(3) of the CAA requires states with ozone nonattainment areas classified under subpart 2 as Serious or above to submit SIP revisions that provide for the implementation of an “Enhanced” I/M program in certain urbanized portions of those areas.<sup>204</sup> As a Severe ozone nonattainment area for the 2008 and 2015 ozone NAAQS, the State of California must implement an Enhanced I/M program in the urbanized portions of the San Diego County area.

As a general matter, Basic and Enhanced I/M programs both achieve their objective by identifying vehicles that have high emissions as a result of one or more malfunctions and requiring them to be repaired. An Enhanced I/M

program covers more of the vehicles in operation, employs inspection methods that are better at finding high emitting vehicles, and has additional features to better assure that all vehicles are tested properly and effectively repaired. The EPA has established specific requirements for Basic and Enhanced I/M programs in 40 CFR part 51, subpart S (“The EPA’s I/M regulation”). The EPA’s I/M regulation establishes minimum performance standards for Basic and Enhanced I/M programs as well as requirements for certain elements of the programs, including, among other elements, test frequency, vehicle coverage, test procedures and standards, stations and inspectors, and data collection, analysis and reporting.<sup>205</sup>

Under 40 CFR 51.351(i), areas required to implement an Enhanced I/M program because of being designated and classified under the 8-hour ozone standard must meet or exceed the VOC and NO<sub>x</sub> emissions reductions (*i.e.*, performance standard) achieved by the EPA’s model program for Enhanced I/M. An I/M performance standard is a collection of program design elements that defines a benchmark program to which a state’s proposed program is compared in terms of its potential to reduce emissions of the ozone precursors, VOC and NO<sub>x</sub>. The performance standard is expressed as emission levels in area-wide average grams per mile (grams/mile), achieved from on-road motor vehicles as a result of a specified model I/M program design. The emissions levels achieved by the state’s program design must be calculated using the most current version of the EPA mobile source emissions factor model and must meet or exceed the emissions reductions achieved by the performance standard program both in operation and for SIP approval. The current version of the EPA mobile source emissions factor model at the time of CARB’s evaluation of the California I/M program for compliance with 40 CFR 51.351(i) was the Motor Vehicle Emission Simulator model, version 3 (MOVES3).<sup>206</sup>

For subject ozone nonattainment areas, the performance standard must be met for both VOC and NO<sub>x</sub> unless a NO<sub>x</sub> waiver has been approved for the area. Enhanced I/M program areas must be shown to obtain the same or lower emissions levels as the model program described in section 51.351(i) to within +/– 0.02 grams/mile and must demonstrate through modeling the ability to maintain this level of

<sup>202</sup> A detailed description of how the facility-based budgets were included in the future-year projections used for the RFP and attainment demonstrations is contained in an email dated May 22, 2023, from Nick Cormier, SDCAPCD, to John J. Kelly, EPA Region IX.

<sup>203</sup> Letter dated July 31, 2023, from Ted Anasis, Manager, Airport Planning, SDIA, to Nick Cormier, SDCAPCD, and letter dated August 16, 2023, from J.C. Gumbfskie-Jones, Fleet Environmental Director, Commander Navy Region Southwest, DoN, to Paula Forbis, Air Pollution Control Officer, SDCAPCD.

<sup>204</sup> The CAA I/M SIP requirements apply to Moderate and above nonattainment areas for the 2008 and 2015 ozone NAAQS pursuant to 40 CFR 51.1102 (for the 2008 ozone NAAQS) and 40 CFR 51.1302 (for the 2015 ozone NAAQS).

<sup>205</sup> 40 CFR part 51, subpart S, sections 350–373.

<sup>206</sup> 86 FR 1106 (January 7, 2021).

emissions reduction (or better) through their attainment deadline for the applicable NAAQS. See 40 CFR 51.351(i)(13).

The California Bureau of Automotive Repair (BAR) implements the I/M program in California. BAR was required to implement an Enhanced I/M program in the urbanized portions of San Diego County due to the County's classification as a Serious nonattainment area for the 1-hour ozone NAAQS.<sup>207</sup> In 1997, the EPA issued an interim approval of the program as meeting the Enhanced I/M requirements for the 1-hour ozone NAAQS in California.<sup>208</sup> Currently, BAR implements an Enhanced I/M program in the urbanized areas of the County, a Basic I/M program in certain parts of central San Diego County, and a change of ownership I/M program in the eastern half of the County.<sup>209</sup>

The EPA's most recent approval of California's I/M program occurred in 2010, and in that action, the EPA approved the program as meeting the applicable I/M requirements for the various nonattainment areas in the State.<sup>210</sup> However, at that time, because San Diego County had been redesignated to attainment for the 1-hour ozone NAAQS and had not yet been classified for the 1997 ozone NAAQS, San Diego County was no longer subject to the Enhanced I/M requirement, and the EPA did not review the program as it applies to San Diego County for compliance with Enhanced I/M program requirements.<sup>211</sup>

The statutory and regulatory foundation for the approved California I/M program is set forth in California Health & Safety Code (CH&SC), Division 26, Part 5, Chapter 5 (Motor Vehicle Inspection Program), Articles 1 through 9 and in Title 16 of the California Code of Regulations (16 CCR), Division 33, Chapter 1, Article 5.5 (Motor Vehicle

Inspection Program).<sup>212</sup> Additional I/M-related statutory and regulatory provisions in the California SIP include CH&SC section 39032.5; California Business and Professions Code sections 9886 and 9886.1–9886.4; California Vehicle Code sections 4000.1, 4000.2, 4000.3 and 4000.6; and 16 CCR sections 3303.1, 3303.2, 3392.1–3392.6 and 3394.1–3394.6.<sup>213</sup>

For the 2020 San Diego County Ozone SIP, the District reviewed the existing I/M program as implemented in the San Diego County area and concluded, in light of the EPA's approval of the program with respect to the 1-hour and 1997 ozone NAAQS, that the area met all applicable I/M requirements for the 2008 and 2015 ozone NAAQS.<sup>214</sup> For this proposed action, we reviewed the existing I/M program and confirmed that the State implements and enforces an Enhanced I/M program in the urbanized areas of San Diego County as required in Severe ozone nonattainment areas.<sup>215</sup> We also note that, since the EPA's most recent approval of the California I/M program in 2010, the State has taken steps to improve the effectiveness of the Smog Check program by requiring the BAR to direct older vehicles to high-performing auto technicians and test stations for inspection and certification.<sup>216</sup> Further changes to State law have required the BAR to implement an updated protocol for testing 2000 and newer model-year vehicles that collects more complete On-Board Diagnostic (OBD) information than had been collected under the

existing protocol.<sup>217</sup> The State publishes an annual report summarizing the performance of the California smog check program.<sup>218</sup> The State also publishes periodic reports to the Legislature on the resources allocated to smog check program administration and enforcement.<sup>219</sup>

Additionally, in April 2023, in response to the EPA's clarification of I/M SIP requirements for areas designated nonattainment for the eight-hour ozone NAAQS,<sup>220</sup> CARB supplemented the motor vehicle I/M portion of the 2020 Plan with the submission of the Smog Check Certification as a revision to the California SIP. CARB's Smog Check Certification includes Enhanced I/M performance standard evaluations for the urbanized areas within certain ozone nonattainment areas, including the San Diego County area, for the 2008 and 2015 ozone NAAQS. For the Smog Check Certification, CARB relied upon the EPA's MOVES3 emissions model and the EPA's most recent guidance for I/M performance standard modeling<sup>221</sup> in preparing the Enhanced I/M performance standard evaluations for the various nonattainment areas addressed in the Smog Check Certification.

For the San Diego County area, the Smog Check Certification presents a comparison of July weekday emissions rates (in grams/mile) for VOC and NO<sub>x</sub> based on the existing California smog check program and the Enhanced I/M model program benchmark. The model program benchmark ultimately includes a 0.02 grams/mile buffer. The analysis was performed for the years 2017, 2026 and 2032. Table 18 of this document summarizes the results of the performance standard modeling.<sup>222</sup>

<sup>217</sup> CARB, Revised Proposed 2016 State Strategy for the State Implementation Plan (March 7, 2017), pp. 52–53.

<sup>218</sup> The most recent performance report is BAR's Smog Check Performance Report 2023, July 1, 2023.

<sup>219</sup> The most recent periodic report is BAR's Sunset Review Report 2022: presented to the Senate Committee on Business, Professions and Economic Development and the Assembly Committee on Business and Professions.

<sup>220</sup> See 87 FR 21842, at 21853 (April 13, 2022) (proposed determinations and reclassifications for Marginal areas for 2015 ozone NAAQS), finalized at 87 FR 60897 (October 7, 2022).

<sup>221</sup> EPA, Performance Standard Modeling for New and Existing Vehicle Inspection and Maintenance (I/M) Programs Using the MOVES Mobile Source Emissions Model, EPA-420-B-22-034, October 2022.

<sup>222</sup> Smog Check Certification, Table 8, p. 20.

<sup>207</sup> In 1995, the EPA corrected the design value for San Diego County used to establish San Diego County's original nonattainment classification for the 1-hour ozone NAAQS and changed the classification from Severe to Serious. 60 FR 3771 (January 19, 1995).

<sup>208</sup> 62 FR 1150 (January 8, 1997); see also 74 FR 41818, at 41820 (August 19, 2009).

<sup>209</sup> California Bureau of Automotive Repair, Smog Check Reference Guide, revised August 2012, appendix A.

<sup>210</sup> 75 FR 38023 (July 1, 2010).

<sup>211</sup> The EPA did not classify San Diego County for the 1997 ozone NAAQS until 2012, and, in that rulemaking, classified San Diego County as "Subpart 2/Moderate." 77 FR 28424 (May 14, 2012).

<sup>212</sup> 75 FR 38023, 38025–38026 (July 1, 2010).

<sup>213</sup> Id.

<sup>214</sup> 2020 Plan, Section 3.1, pp. 33–34 (2008 ozone NAAQS) and Section 4.1, pp. 53–54 (2015 ozone NAAQS).

<sup>215</sup> CH&SC section 44003(a)(1) provides: "An enhanced motor vehicle inspection and maintenance program is established in each urbanized area of the state, any part of which is classified by the Environmental Protection Agency as a serious, severe, or extreme nonattainment area for ozone or a moderate or serious nonattainment area for carbon monoxide with a design value greater than 12.7 ppm, and in other areas of the state as provided in this chapter." In addition, we used BAR's Smog Check Program Area Lookup tool and a list of zip codes for San Diego County to confirm the implementation of the Enhanced I/M program in the urbanized areas of San Diego County.

<sup>216</sup> CARB, Progress Report on Implementation of PM<sub>2.5</sub> State Implementation Plans (SIP) for the South Coast and San Joaquin Valley Air Basins and Proposed SIP Revisions (Release Date: March 29, 2011), Table 1.

TABLE 18—SUMMARY OF JULY WEEKDAY EMISSION RATES FOR SAN DIEGO COUNTY

Scenario	NO <sub>x</sub>	VOC
<b>Calendar Year 2017 July Weekday Emission Rates (grams/mile)</b>		
CA Existing Program .....	0.2604	0.2292
Enhanced Performance Standard Benchmark .....	0.2831	0.2357
Enhanced Performance Standard Benchmark with 0.02 g/mile Buffer .....	0.3031	0.2557
<b>Calendar Year 2026 July Weekday Emission Rates (grams/mile)</b>		
CA Existing Program .....	0.0863	0.1284
Enhanced Performance Standard Benchmark .....	0.0902	0.1255
Enhanced Performance Standard Benchmark with 0.02 g/mile Buffer .....	0.1102	0.1455
<b>Calendar Year 2032 July Weekday Emission Rates (grams/mile)</b>		
CA Existing Program .....	0.0374	0.0960
Enhanced Performance Standard Benchmark .....	0.0367	0.0921
Enhanced Performance Standard Benchmark with 0.02 g/mile Buffer .....	0.0567	0.1121

Source: CARB, Smog Check Certification, Table 8.

For both VOC and NO<sub>x</sub> in all analysis years, CARB's MOVES3 modeling results indicate that the California Enhanced I/M program meets or exceeds the federal Enhanced I/M performance standard benchmark program with the 0.02 g/mile buffer in San Diego County.

We find that CARB used appropriate methods and input data to perform the I/M performance standard evaluations for San Diego County, analyzed appropriate years consistent with 40 CFR 351(i)(13), and included sufficient documentation to support the results. We also find that, based on our review of the District's and CARB's certification and the results presented in the Smog Check Certification, the California smog check program meets the Enhanced I/M program SIP requirements under CAA section 182(c)(3), 40 CFR 51.1102 and 40 CFR 51.1302 for the 2008 and 2015 ozone NAAQS in the San Diego County area. Therefore, the EPA proposes to approve the I/M portion of the 2020 Plan, as supplemented by the San Diego County portion of the Smog Check Certification, as revisions to the California SIP.

## 2. New Source Review Rules

Section 182(a)(2)(C) of the CAA requires states to submit SIP revisions containing permit programs for each of their ozone nonattainment areas. The SIP revisions are to 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 or NO<sub>x</sub> anywhere in the nonattainment area.<sup>223</sup> The 2008 Ozone SRR and 2015 Ozone SRR include provisions and guidance for

nonattainment new source review (NSR) programs.<sup>224</sup>

In the 2020 San Diego County Ozone SIP, the District certifies compliance with NSR requirements for the 2008 and 2015 ozone NAAQS through amendments to the District's NSR rules (Rules 20.1–20.4) in June 2019.<sup>225</sup> In 2020, the EPA issued a final limited approval/limited disapproval of Rule 20.1 and a full approval of Rules 20.2, 20.3 and 20.4.<sup>226</sup> In that rulemaking, we found that the rules, with one exception not directly related to the ozone NAAQS, met the applicable NSR requirements for San Diego County as a Serious nonattainment area for the 2008 ozone NAAQS and as a Moderate nonattainment area for the 2015 ozone NAAQS.

Since our NSR rulemaking in 2020, the San Diego County area has been reclassified to Severe for the 2008 and 2015 ozone NAAQS. However, the approved NSR rules already include NO<sub>x</sub> and VOC applicability thresholds and offset ratios applicable to Severe ozone nonattainment areas that automatically applied upon the July 2, 2021 effective date of the area's reclassification to Severe.<sup>227</sup> In addition, in 2022, the EPA issued a final full approval of four amended District rules, including Rule 20.1.<sup>228</sup> In our 2022 rulemaking, we found that the submitted NSR rules satisfy the

applicable NSR requirements for both the 2008 and 2015 ozone NAAQS.<sup>229</sup>

Given the recent approval of the NSR program as meeting the applicable NSR requirements for the two relevant ozone NAAQS, including the applicability of the Severe area applicability threshold and offset ratio, we propose to approve the NSR certification in the 2020 Plan that the EPA-approved District NSR rules comply with the applicable NSR requirements under CAA sections 172(c)(5), 173 and 182(a)(2)(C), and 40 CFR 51.1114 and 51.1314 for the San Diego County area for the 2008 and 2015 ozone NAAQS.

## 3. Clean Fuels Fleet Program

Sections 182(c)(4)(A) and 246 of the CAA require states to submit SIP revisions that establish a clean-fuel vehicle program for fleets (referred to herein as a Clean Fuels Fleets Program (CFFP)) in certain of their ozone nonattainment areas classified as Serious and above. The federal CFFP is specified in part C of title II of the CAA. Section 182(c)(4)(B) of the CAA allows states to opt out of the federal CFFP 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. The CFFP SIP requirement applies to the San Diego County area as an ozone nonattainment area with a 1980 population of 200,000 or more and classified as Severe for the 2008 and 2015 ozone NAAQS.<sup>230</sup>

<sup>224</sup> 40 CFR 51.1114 and 80 FR 12264 (March 6, 2015) (2008 ozone NAAQS); and 40 CFR 51.1314 and 83 FR 62998 (December 6, 2018) (2015 ozone NAAQS).

<sup>225</sup> 2020 Plan, section 2.3, pp. 25–26.

<sup>226</sup> 85 FR 57727 (September 16, 2020).

<sup>227</sup> 86 FR 29522 (June 2, 2021).

<sup>228</sup> 87 FR 58729 (September 28, 2022).

<sup>229</sup> 87 FR 29105, at 29107 (May 12, 2022) (proposed approval of amended District NSR rules); finalized at 87 FR 58729 (September 28, 2022).

<sup>230</sup> See the definition of “covered areas” in CAA section 246(a)(2). The CFFP SIP requirement applies to the 2008 and 2015 ozone NAAQS pursuant to 40 CFR 51.1102 and 40 CFR 51.1302.

<sup>223</sup> See also CAA section 182(d).

In 1994, CARB submitted a SIP revision to the EPA to opt out of the federal CFFP. The submittal included a demonstration that California's low-emissions vehicle program (now referred to as the low-emissions vehicle (LEV I) regulation) 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.<sup>231</sup> There have been no changes to the federal CFFP since the EPA approved the California SIP revision to opt out of the federal program, and thus, no corresponding changes to the SIP are required. In addition, California continues to implement its low-emissions vehicle program and has tightened the low-emissions vehicle emissions standards through adoption of the LEV II and LEV III regulations. The EPA approved the LEV II and LEV III regulations as part of the California SIP in 2016.<sup>232</sup>

In the 2020 San Diego County Ozone SIP, the District certified that, in light of the EPA's approval of the SIP revision to opt out of the federal program, the San Diego County area continues to meet the requirements of CAA sections 182(c)(4) and 246 for the 2008 and 2015 ozone NAAQS.<sup>233</sup> We agree with the District's conclusion and find that the California SIP revision to opt out of the federal program, as approved in 1999, continues to meet the requirements of CAA sections 182(c)(4) and 246, and 40 CFR 51.1102 and 51.1302, for the San Diego County area for the 2008 and 2015 ozone NAAQS. For that reason, we propose to approve the certification in the 2020 San Diego County Ozone SIP that the San Diego County area continues to meet the CFFP SIP requirements for the 2008 and 2015 ozone NAAQS.

#### 4. Gasoline Vapor Recovery

Section 182(b)(3) of the CAA requires states to submit SIP revisions by November 15, 1992, that require owners or operators of gasoline dispensing systems to install and operate gasoline vehicle refueling vapor recovery ("Stage II") systems in ozone nonattainment areas classified as Moderate and above. California's ozone nonattainment areas implemented Stage II vapor recovery well before the passage of the CAA Amendments of 1990.<sup>234</sup>

Section 202(a)(6) of the CAA requires the EPA to promulgate standards requiring motor vehicles to be equipped with onboard refueling vapor recovery (ORVR) systems. The EPA promulgated the first set of ORVR system regulations in 1994 for phased implementation by vehicle manufacturers, and since the end of 2006, essentially all new gasoline-powered light and medium-duty vehicles are ORVR-equipped.<sup>235</sup> Section 202(a)(6) also authorizes the EPA to waive the SIP requirement under CAA section 182(b)(3) for installation of Stage II vapor recovery systems after such time as the EPA determines that ORVR systems are in widespread use throughout the motor vehicle fleet. Effective May 16, 2012, the EPA waived the requirement of CAA section 182(b)(3) for Stage II vapor recovery systems in ozone nonattainment areas regardless of classification.<sup>236</sup> Thus, a SIP submittal meeting CAA section 182(b)(3) is not required for the 2008 ozone NAAQS or the 2015 ozone NAAQS.

While a SIP submittal meeting CAA section 182(b)(3) is not required for the 2008 or 2015 ozone NAAQS, under California state law (*i.e.*, Health and Safety Code section 41954), CARB is required to adopt procedures and performance standards for controlling gasoline emissions from gasoline marketing operations, including transfer and storage operations. State law also authorizes CARB, in cooperation with local air districts, to certify vapor recovery systems, to identify defective equipment and to develop test methods. CARB has adopted numerous revisions to its vapor recovery program regulations and continues to rely on its vapor recovery program to achieve emissions reductions in ozone nonattainment areas in California.

In the San Diego County area, the installation and operation of CARB-certified vapor recovery equipment is required and enforced by SDCAPCD Rule 61.4 ("Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks"). This rule was most recently approved into the SIP on January 7, 2013.<sup>237</sup>

#### 5. Enhanced Ambient Air Monitoring

Section 182(c)(1) of the CAA requires states to submit SIP revisions for all ozone nonattainment areas classified as Serious or above that contain measures to enhance and improve monitoring for ambient concentrations of ozone, NO<sub>x</sub>, and VOC, and to improve monitoring of emissions of NO<sub>x</sub> and VOC in those

areas. 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.<sup>238</sup> San Diego County is subject to the CAA PAMS network SIP requirement as a Severe nonattainment area for the 2008 and 2015 ozone NAAQS pursuant to 40 CFR 51.1102 and 51.1302.

On November 10, 1993, CARB submitted to the EPA a SIP revision addressing the PAMS network for six ozone nonattainment areas, including San Diego County, to meet the enhanced monitoring requirements of CAA section 182(c)(1) and the PAMS regulations for the 1-hour ozone NAAQS. At the time, San Diego County was classified as a "Severe-15" ozone nonattainment area for the 1-hour ozone NAAQS but that classification was later corrected to be "Serious." The EPA determined that the PAMS SIP revision met all applicable requirements for enhanced monitoring and approved the PAMS submittal into the California SIP.<sup>239</sup>

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.<sup>240</sup> 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.<sup>241</sup> The 2008 Ozone SRR and 2015 Ozone SRR made no changes to these requirements.<sup>242</sup>

The most recent annual monitoring plan for San Diego County that the EPA has reviewed is the District's "Annual Air Quality Monitoring Network Report 2021" (2021 ANP).<sup>243</sup> The District's 2021 ANP describes the steps taken to address the requirements of section 182(c)(1), includes descriptions of the PAMS program and provides additional details about the PAMS network.<sup>244</sup> The

<sup>238</sup> 58 FR 8452 (February 12, 1993).

<sup>239</sup> 82 FR 45191 (September 28, 2017).

<sup>240</sup> 71 FR 61236 (October 17, 2006).

<sup>241</sup> 40 CFR 58.2(b) now provides that "[t]he requirements pertaining to provisions for an air quality surveillance system in the SIP are contained in this part."

<sup>242</sup> The 2008 and 2015 ozone SRRs address PAMS-related requirements. For the 2008 ozone NAAQS, see 80 FR 12264, at 12291 (March 6, 2015); for the 2015 ozone NAAQS, see 83 FR 62998, at 63008 (December 6, 2018).

<sup>243</sup> SDCAPCD, Annual Air Quality Monitoring Report 2021, submitted for EPA review on June 29, 2022.

<sup>244</sup> 2021 ANP, chapter 11 ("Photochemical Assessment Monitoring Stations (PAMS)"). Starting  
Continued

<sup>231</sup> 64 FR 46849 (August 27, 1999).

<sup>232</sup> 81 FR 39424 (June 16, 2016).

<sup>233</sup> 2020 San Diego County Ozone SIP, Section 3.1, pp. 33–34 and endnote 78 (2008 ozone NAAQS) and Section 4.1, pp. 53–54 and endnote 126 (2015 ozone NAAQS).

<sup>234</sup> General Preamble, 57 FR 13498, 13514 (April 16, 1992).

<sup>235</sup> 77 FR 28772, at 28774 (May 16, 2012).

<sup>236</sup> 40 CFR 51.126(b).

<sup>237</sup> 78 FR 897.

EPA approved the District's current PAMS network as part of our approval of the District's ANP.<sup>245</sup>

The 2020 Plan certifies compliance with the CAA section 182(c)(1) enhanced ambient monitoring requirement for the 2008 ozone NAAQS and 2015 ozone NAAQS by reference to the area's approved PAMS SIP revision for the 1-hour ozone NAAQS.<sup>246</sup> We agree that the San Diego County area meets the CAA section 182(c)(1) enhanced ambient monitoring requirement for the 2008 and 2015 ozone NAAQS based on the District's compliance with the EPA's monitoring regulations in 40 CFR part 58 for PAMS networks. On that basis, we propose to approve the 2020 Plan's certification of compliance with the enhanced monitoring requirements for the 2008 and 2015 ozone NAAQS for the San Diego County area under CAA section 182(c)(1) and 40 CFR 51.1102 and 51.1302.

#### 6. CAA Section 185 Fee Program

Sections 182(d)(3) and 185 of the CAA require that the SIP for each Severe and Extreme ozone nonattainment area provide that, if the area fails to attain by its applicable attainment date, each major stationary source of VOC and NO<sub>x</sub> located in the area shall pay a fee to the state as a penalty for such failure for each calendar year beginning after the attainment date, until the area is redesignated as an attainment area for ozone. These requirements apply to the San Diego County area as a Severe nonattainment area for both the 2008 and the 2015 ozone NAAQS. States were required to submit to the EPA by July 20, 2022, a SIP revision that meets the requirements of CAA section 185 for the 2008 ozone NAAQS. The District adopted Rule 45 to meet those requirements and the state submitted it to the EPA on July 20, 2022. The EPA plans to take action on that submittal separately from this action. States are not yet required to submit a SIP revision that meets the requirements of CAA section 185 for the 2015 ozone NAAQS.<sup>247</sup>

in 2007, the EPA's monitoring rules at 71 FR 61236 (October 17, 2006) required the submittal and EPA action on ANPs. SDCAPCD's 2021 ANP can be found in the docket for this action.

<sup>245</sup> Letter dated October 31, 2022, from Gwen Yoshimura, EPA Region IX to David Sodeman, Chief, Monitoring and Technical Services, SDCAPCD, approving the 2021 San Diego ANP with certain exceptions unrelated to the PAMS requirements.

<sup>246</sup> 2020 Plan, pp. 33–34 and endnote 80 (2008 ozone NAAQS) and pp. 53–54 and endnote 128 (2015 ozone NAAQS).

<sup>247</sup> See 40 CFR 51.1117 (2008 ozone NAAQS) and 51.1317 (2015 ozone NAAQS). The deadline for

#### 7. Emissions Statement

Section 182(a)(3)(B)(i) of the Act requires states to submit a SIP revision requiring owners or operators of stationary sources of VOC or NO<sub>x</sub> to provide the state with statements of actual emissions from such sources. Statements must be submitted at least every year and must contain a certification that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. Section 182(a)(3)(B)(ii) of the Act allows states to waive the emissions statement requirement for any class or category of stationary sources that emit less than 25 tpy of VOC or NO<sub>x</sub>, if the state provides an inventory of emissions from such class or category of sources as part of the base year or periodic inventories required under CAA sections 182(a)(1) and 182(a)(3)(A), based on the use of emissions factors established by the EPA or other methods acceptable to the EPA.

The preamble of the 2008 Ozone SRR states that if an area has a previously approved emissions statement rule for the 1997 ozone NAAQS or the 1-hour ozone NAAQS that covers all portions of the nonattainment area for the 2008 ozone NAAQS, such rule should be sufficient for purposes of the emissions statement requirement for the 2008 ozone NAAQS. The state should review the existing rule to ensure it is adequate and, if so, may rely on it to meet the emissions statement requirement for the 2008 ozone NAAQS.<sup>248</sup> The same approach was included in the 2015 Ozone SRR.<sup>249</sup> Where an existing emissions statement requirement is still adequate to meet the requirements of these rules, states can provide the rationale for that determination to the EPA in a written statement in the SIP to meet this requirement. States should identify the various requirements and how each is met by the existing emissions statement program. Where an emissions statement requirement is modified for any reason, states must provide the revision to the emissions statement as part of its SIP.

The 2020 Plan addresses compliance with the emissions statement requirement in CAA section 182(a)(3)(B) for the San Diego County area for the 2008 and 2015 ozone NAAQS in Section 2.2 (“Emissions Statement Rule Certification”) of the plan.<sup>250</sup> In Section

submittal to the EPA for the area's CAA section 185 SIP revision for the 2015 ozone NAAQS is August 3, 2028.

<sup>248</sup> See 80 FR 12264, at 12291 (March 6, 2015).

<sup>249</sup> See 83 FR 62998, at 63023 (December 6, 2018).

<sup>250</sup> 2020 Plan, at 23–25.

2.2 of the 2020 Plan, the District evaluates compliance with CAA section 182(a)(3)(B) by reference to District Rule 19.3 that, among other things, requires emissions reporting from stationary sources of NO<sub>x</sub> and VOC greater than or equal to 5 tpy, as deemed appropriate by the District's Air Pollution Control Officer (APCO). In addition, the District reports emissions of VOC and NO<sub>x</sub> from sources that emit less than 25 tpy via CARB's California Emission Inventory Development and Reporting System (CEIDARS). All sources with emissions of VOC or NO<sub>x</sub> greater than or equal to 25 tpy must provide an emissions statement to the District. District Rule 19.3 applies throughout the San Diego County area. On April 6, 1993, the District adopted District Rule 19.3 to meet the requirements in CAA section 182(a)(3)(B). The District amended District Rule 19.3 on May 15, 1996, and the EPA approved the rule into the California SIP, effective May 8, 2000.<sup>251</sup>

In a separate action, the EPA approved the “Emissions Statement Rule Certification” portion of the 2020 Plan that certifies District Rule 19.3 as meeting the emissions statement requirement under CAA section 182(a)(3)(B) for the San Diego County area for the 2008 and 2015 ozone NAAQS.<sup>252</sup>

#### IV. Environmental Justice Considerations

This document proposes to approve certain SIP elements included in the 2020 Plan and the San Diego County area portion of the Smog Check Certification. Information on ozone and its relationship to negative health impacts can be found on the EPA's website.<sup>253</sup> We expect that this proposed action, once approved, will generally be neutral or contribute to reduced environmental and health impacts on all populations in the San Diego County area, 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. Lastly,

<sup>251</sup> 65 FR 12472 (March 9, 2000).

<sup>252</sup> 87 FR 45657 (July 29, 2022).

<sup>253</sup> Ozone National Ambient Air Quality Standards (NAAQS): <https://www.epa.gov/ground-level-ozone-pollution/ozone-national-ambient-air-quality-standards-naaqs>; Health Effects of Ozone Pollution: <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>.

although the District did not perform an environmental justice review specifically for the 2020 Plan, the District does implement the State's "Community Air Protection Program" in San Diego County.<sup>254</sup> This program identifies specific communities based on environmental, health and socioeconomic information in order to reduce their pollution exposure.

## V. Proposed Action

For the reasons discussed in this document, under CAA section 110(k)(3), the EPA is proposing to approve all of the "2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County," submitted on January 12, 2021, with two exceptions, and the San Diego County area I/M SIP revision for the 2008 and 2015 ozone NAAQS, *i.e.*, the San Diego County portion of the "Smog Check Performance Standing Modeling and Certification," submitted on April 26, 2023. The portions of the 2020 Plan on that we are not proposing action are the portion addressing the emissions statement requirement, which we already approved in a separate rulemaking, and the portion addressing the contingency measures requirement, for which we are deferring action.<sup>255</sup>

More specifically, we are proposing approval of the following portions of the 2020 Plan, as supplemented by the Smog Check Certification, as meeting the following requirements:

- Base year emissions inventory element as meeting the requirements of CAA sections 172(c)(3) and 182(a)(1) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1115 for the 2008 ozone

NAAQS, and 40 CFR 51.1315 for the 2015 ozone NAAQS;

- RACM demonstration element as meeting the requirements of CAA section 172(c)(1) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1112(c) for the 2008 ozone NAAQS, and 40 CFR 51.1312(c) for the 2015 ozone NAAQS;

- Attainment demonstration element for the 2008 ozone NAAQS as meeting the requirements of CAA section 182(c)(2)(A) and 40 CFR 51.1108;

- Attainment demonstration element for the 2015 ozone NAAQS as meeting the requirements of CAA section 182(c)(2)(A) and 40 CFR 51.1308, and the related commitments by CARB (through CARB Resolution 20–29) to achieve an aggregate emissions reduction of 4 tpd of NO<sub>x</sub> by 2032 in the San Diego County area and by the District (through District Resolution 20–166) to achieve emissions reductions of 1.7 tpd by 2032;

- ROP demonstration element as meeting the requirements of CAA section 182(b)(1) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1110(a)(2) for the 2008 ozone NAAQS, and 40 CFR 51.1310(a)(2) for the 2015 ozone NAAQS;

- RFP demonstration element as meeting the requirements of CAA sections 172(c)(2), 182(b)(1), and 182(c)(2)(B) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1110(a)(2)(i) and (ii) for the 2008 ozone NAAQS, and 40 CFR 51.1310(a)(2)(ii) for the 2015 ozone NAAQS;

- VMT emissions offset demonstration element as meeting the requirements of CAA section 182(d)(1)(A) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1102 for the 2008 ozone NAAQS, and 40 CFR 51.1302 for the 2015 ozone NAAQS;

- Motor vehicle emissions budgets for the 2020 and 2023 RFP milestone years and the 2026 attainment year (see Table 15) because they are consistent with the RFP and attainment demonstrations for the 2008 ozone NAAQS proposed for approval herein and meet the other criteria in 40 CFR 93.118(e)(4);

- Motor vehicle emissions budgets for the 2023, 2026 and 2029 RFP milestone years and the 2032 attainment year (see Table 16) because they are consistent with the RFP and attainment demonstrations for the 2015 ozone NAAQS proposed for approval herein and meet the other criteria in 40 CFR 93.118(e)(4);

- General conformity budgets (or growth increments, in this case) for the Department of the Navy and United States Marine Corps, and for the San Diego International Airport (see Table

17) as meeting the requirements of CAA section 176(c) and 40 CFR 93.161;

- Enhanced vehicle inspection and maintenance program element in the 2020 Plan, as supplemented by the San Diego County area portion of the Smog Check Certification, as meeting the requirements of CAA section 182(c)(3) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1102 for the 2008 ozone NAAQS, and 40 CFR 51.1302 for the 2015 ozone NAAQS;

- Clean fuels fleet program element as meeting the requirements of CAA sections 182(c)(4)(A) and 246 for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1102 for the 2008 ozone NAAQS, and 40 CFR 51.1302 for the 2015 ozone NAAQS;

- New Source Review program element as meeting the requirements of CAA sections 172(c)(5), 173 and 182(a)(2)(C) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1114 for the 2008 ozone NAAQS, and 40 CFR 51.1314 for the 2015 ozone NAAQS; and

- Enhanced monitoring element as meeting the requirements of CAA section 182(c)(1) for the 2008 and 2015 ozone NAAQS, 40 CFR 51.1102 for the 2008 ozone NAAQS, and 40 CFR 51.1302 for the 2015 ozone NAAQS.

The EPA is soliciting public comments on the issues discussed in this document. We will accept comments from the public on this proposal for the next 30 days and will consider comments before taking final action.

## VI. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, 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.*);

<sup>254</sup> See email dated March 2, 2023, from Nick Cormier, SDCAPCD, to John J. Kelly, EPA, regarding environmental justice information on San Diego County communities. The State's Community Air Protection Program was created by passage of the State's Assembly Bill (AB) 617. At the time of the email, the District had developed a plan to address emissions of air pollutants in one community (Portside) that was identified by the program and another community (the "International Border Community," that is, the San Ysidro-Otay Mesa area) had also been identified.

<sup>255</sup> Regarding other applicable requirements for the 2008 and 2015 ozone NAAQS in San Diego County, the EPA has previously approved the portion of the 2020 Plan that addresses the emissions statement requirement and will be taking action on the San Diego RACT submittal in separate rulemakings. See 87 FR 45657 (July 29, 2022) (approval of emissions statement certification); and 88 FR 57361 (August 23, 2023) (final approval of District Rule 69.2.2), and 88 FR 48150 (July 26, 2023) (proposed approval of District Rule 69.2.1). A SIP revision for San Diego County addressing the penalty fee requirements under CAA sections 182(d)(3) and 185 for the 2008 ozone NAAQS was submitted by CARB to the EPA on July 20, 2022, and EPA will take action on the July 20, 2022 SIP revision in a separate rulemaking. The area's penalty fee SIP revision is not due for the 2015 ozone NAAQS until August 3, 2028.

- 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 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- 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 (Environmental Justice Considerations) of this document, the District does participate in the State’s environmental justice program. The EPA did not perform an EJ analysis and did not consider EJ in this proposed 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 San Diego County. 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 relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

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

Dated: December 8, 2023.

**Martha Guzman Aceves,**

*Regional Administrator, Region IX.*

[FR Doc. 2023–27513 Filed 12–18–23; 8:45 am]

**BILLING CODE 6560–50–P**