ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA–R09–OAR–2019–0145; FRL–10010–50–Region 9]

Approval and Promulgation of Implementation Plans; Designation of Areas for Air Quality Planning Purposes; California; South Coast Moderate Area Plan and Reclassification as Serious Nonattainment for the 2012 $PM_{2.5}$ NAAQS

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve or conditionally approve portions of a state implementation plan (SIP) revision submitted by California to address Clean Air Act (CAA or ''Act'') requirements for the 2006 and 2012 fine particulate matter ($PM_{2.5}$) national ambient air quality standards (NAAQS or ''standards'') in the Los Angeles-South Coast Air Basin (''South Coast'') $PM_{2.5}$ nonattainment area. Specifically, the EPA is proposing to approve all but the contingency measure element of the submitted SIP revision as meeting all applicable Moderate area requirements for the 2012 annual $PM_{2.5}$ NAAQS, and to conditionally approve the contingency measure element as meeting both the Moderate area contingency measure requirement for the 2012 annual $PM_{2.5}$ NAAQS and the Serious area contingency measure requirement for the 2006 24-hour $PM_{2.5}$ NAAQS. In addition, the EPA is proposing to approve 2019 and 2022 motor vehicle emissions budgets for use in transportation conformity analyses for the 2012 annual $PM_{2.5}$ NAAQS. The EPA is also proposing to reclassify the South Coast $PM_{2.5}$ nonattainment area, including reservation areas of Indian country and any other area of Indian country within it where the EPA or a tribe has demonstrated that the tribe has jurisdiction, as a Serious nonattainment area for the 2012 annual $PM_{2.5}$ NAAQS based on the EPA's determination that the area cannot practicably attain the standard by the applicable Moderate area attainment date of December 31, 2021. Upon final reclassification of the South Coast as a Serious area for this NAAQS, California will be required to submit a Serious area plan for the area that includes a demonstration of attainment by the applicable Serious area attainment date, which is no later than December 31, 2025, or by the most expeditious alternative date practicable, in accordance with the requirements of part D of title I of the CAA.

DATES: Any comments on this proposal must be received by August 3, 2020.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R09–OAR–2019–0145 at *https://www.regulations.gov,* or via email to *graham.ashleyr@epa.gov.* For comments submitted at *Regulations.gov*, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov.* For either manner of submission, 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 (*e.g.,* audio or video) 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.*

FOR FURTHER INFORMATION CONTACT: Ashley Graham, Air Planning Office (AIR–2), EPA Region IX, (415) 972–3877, *graham.ashleyr@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document, ''we,'' ''us,'' or ''our'' refer to the EPA.

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I. Background for Proposed Action

On October 17, 2006, the EPA strengthened the 24-hour (daily) NAAQS for particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$) by lowering the level from 65 micrograms (µg) per cubic meter (m^3) to 35 µg/m^3 (''2006 $PM_{2.5}$ NAAQS'').[1] On January 15, 2013, the EPA strengthened the primary annual NAAQS for $PM_{2.5}$ by lowering the level from 15.0 µg/m^3 to 12.0 µg/m^3 (''2012 $PM_{2.5}$ NAAQS'').[2] The EPA established these standards after considering substantial evidence from numerous health studies demonstrating that serious health effects are associated with exposures to $PM_{2.5}$ concentrations above these levels.

Epidemiological studies have shown statistically significant correlations between elevated $PM_{2.5}$ levels and premature mortality. Other important health effects associated with $PM_{2.5}$ exposure include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), changes in lung function, and increased respiratory symptoms. Individuals particularly sensitive to $PM_{2.5}$ exposure include older adults, people with heart and lung disease, and children.[3] $PM_{2.5}$ can be emitted directly into the atmosphere as a solid or liquid particle (''primary $PM_{2.5}$'' or ''direct $PM_{2.5}$'') or can be formed in the atmosphere (''secondary $PM_{2.5}$'') as a result of various chemical reactions among precursor pollutants such as nitrogen oxides (NO_X), sulfur oxides (SO_X), volatile organic

[1] 71 FR 61144 and 40 CFR 50.13. The EPA first established NAAQS for $PM_{2.5}$ on July 18, 1997 (62 FR 38652), including annual standards of 15.0 µg/m^3 based on a 3-year average of annual mean concentrations and 24-hour (daily) standards of 65 µg/m^3 based on a 3-year average of 98th percentile 24-hour concentrations (40 CFR 50.7).

[2] 78 FR 3086 and 40 CFR 50.18. Unless otherwise noted, all references to the $PM_{2.5}$ standards in this notice are to the 2012 annual NAAQS of 12.0 µg/m^3 codified at 40 CFR 50.18.

[3] Id.

compounds (VOC), and ammonia (NH_3).[4]

Following promulgation of a new or revised NAAQS, the EPA is required by CAA section 107(d) to designate areas throughout the nation as attaining or not attaining the NAAQS. On November 13, 2009, the EPA designated the South Coast area as nonattainment for the 2006 $PM_{2.5}$ NAAQS.[5] The EPA classified the area as Moderate nonattainment on June 2, 2014 and reclassified it as Serious nonattainment for these NAAQS on January 13, 2016.[6] On January 15, 2015, the EPA designated and classified the South Coast area as Moderate nonattainment for the 2012 $PM_{2.5}$ NAAQS.[7] The South Coast area is also designated and classified as Moderate nonattainment for the 1997 annual and 24-hour $PM_{2.5}$ NAAQS.[8]

On April 27, 2017, the California Air Resources Board (CARB) submitted the ''Final 2016 Air Quality Management Plan (March 2017)'' to provide for attainment of both the 2006 $PM_{2.5}$ NAAQS and the 2012 $PM_{2.5}$ NAAQS in the South Coast (''2016 $PM_{2.5}$ Plan'' or ''Plan'').[9] On February 12, 2019, the EPA approved those portions of the 2016 $PM_{2.5}$ Plan that pertain to the requirements for implementing the 2006 $PM_{2.5}$ NAAQS, except for the contingency measure component of the Plan.[10]

The South Coast $PM_{2.5}$ nonattainment area is home to about 17 million people, has a diverse economic base, and contains one of the highest-volume port areas in the world. For a description of the geographic boundaries of the South Coast $PM_{2.5}$ nonattainment area, see 40 CFR 81.305. The local air district with primary responsibility for developing a plan to attain the $PM_{2.5}$ NAAQS in the South Coast area is the South Coast Air Quality Management District (SCAQMD or ''District''). The District works cooperatively with CARB in preparing these plans. Authority for regulating sources in the South Coast is split between the District, which has responsibility for regulating stationary and most area sources, and CARB, which has responsibility for regulating most mobile sources and some categories of consumer products.

II. Summary of the South Coast $PM_{2.5}$ Plan

We are proposing action on portions of a California SIP submission that address the Moderate area plan requirements for the 2012 annual $PM_{2.5}$ NAAQS and the Serious area contingency measure requirement for the 2006 24-hour $PM_{2.5}$ NAAQS in the South Coast $PM_{2.5}$ nonattainment area. The SCAQMD Governing Board adopted the ''Final 2016 Air Quality Management Plan (March 2017)'' on March 3, 2017, and CARB submitted this SIP revision to the EPA on April 27, 2017.[11] We refer to this SIP submission herein as the ''2016 $PM_{2.5}$ Plan'' or ''Plan.''

The 2016 $PM_{2.5}$ Plan is organized into eleven chapters, each addressing a specific topic. We summarize below each of the chapters relevant to the 2012 $PM_{2.5}$ NAAQS and the contingency measure requirement for the 2006 $PM_{2.5}$ NAAQS.[12] Chapter 1, ''Introduction,'' provides general background, including a discussion of the purpose of the Plan, historical air quality progress in the South Coast, and the District's approach to air quality planning. Chapter 2, ''Air Quality and Health Effects,'' discusses current air quality in comparison with federal health-based air pollution standards. Chapter 3, ''Base Year and Future Year Emissions,'' summarizes emissions inventories, estimates current emissions by source and pollutant, and projects future emissions with and without growth. Chapter 4, ''Control Strategy and Implementation,'' presents the control strategy, specific measures, and implementation schedules to attain the air quality standards by the specified attainment dates. Chapter 5, ''Future Air Quality,'' describes the modeling approach used in the Plan and summarizes the South Coast's future air quality projections with and without the control strategy. Chapter 6, ''Federal and State Clean Air Act Requirements,'' discusses specific federal and state requirements as they pertain to the South Coast, including anti-backsliding requirements for revoked standards. Chapter 11, ''Public Process and Participation,'' describes the District's public outreach effort associated with the development of the Plan. Finally, a glossary is provided at the end of the document, presenting definitions of terms commonly used in the Plan.

The Plan also includes the following technical appendices:

- Appendix I (''Health Effects'') presents a summary of scientific findings on the health effects of ambient air pollution.
- Appendix II (''Current Air Quality'') contains a detailed summary of the air quality in 2014, along with prior year trends, in both the South Coast and the Coachella Valley.
- Appendix III (''Base and Future Year Emission Inventory'') presents the 2012 base year emissions inventory and projected emissions inventories of air pollutants in future attainment years for both annual average and summer planning inventories.
- Appendix IV–A (''SCAQMD's Stationary and Mobile Source Control Measures'') describes SCAQMD's proposed stationary and mobile source control measures to attain the federal ozone and $PM_{2.5}$ standards.
- Appendix IV–B (''CARB's Mobile Source Strategy'') describes CARB's proposed 2016 strategy to attain health-based federal air quality standards.

[4] EPA, Air Quality Criteria for Particulate Matter, No. EPA/600/P–99/002aF and EPA/600/P–99/002bF, October 2004.

[5] 74 FR 58688 (codified at 40 CFR 81.305).

[6] 79 FR 31566 and 81 FR 1514. The EPA promulgated these $PM_{2.5}$ nonattainment area classifications in response to a 2013 decision of the Court of Appeals for the D.C. Circuit remanding the EPA's prior implementation rule for the $PM_{2.5}$ NAAQS and directing the EPA to promulgate implementation rules pursuant to subpart 4 of part D, title I of the Act. *Natural Resources Defense Council* v. *EPA*, 706 F.3d 428 (D.C. Cir. 2013).

[7] 80 FR 2206 (codified at 40 CFR 81.305).

[8] 70 FR 944 (January 5, 2005) (codified at 40 CFR 81.305). In November 2007, California submitted the 2007 $PM_{2.5}$ Plan to provide for attainment of the 1997 $PM_{2.5}$ standards in the South Coast. On November 9, 2011, the EPA approved all but the contingency measures in the 2007 $PM_{2.5}$ Plan (76 FR 69928), and on October 29, 2013, the EPA approved a revised contingency measure SIP for the area (78 FR 64402). On July 25, 2016, the EPA determined that the South Coast area had attained the 1997 annual and 24-hour $PM_{2.5}$ NAAQS based on 2011–2013 monitoring data, suspending any remaining attainment-related planning requirements for purposes of the 1997 $PM_{2.5}$ NAAQS in this area (81 FR 48350).

[9] Letter dated April 27, 2017, from Richard Corey, Executive Officer, CARB, to Alexis Strauss, Acting Regional Administrator, EPA Region IX (transmitting ''Final 2016 Air Quality Management Plan (March 2017)'').

[10] 84 FR 3305. As part of this action, the EPA found that, for purposes of the 2006 $PM_{2.5}$ NAAQS, the requirement for contingency measures to be undertaken if the area fails to make RFP under CAA section 172(c)(9) was moot as applied to the 2017 milestone year because CARB and the District had demonstrated to the EPA's satisfaction that the 2017 milestones in the plan had been met. The EPA took no action with respect to RFP contingency measures for the 2020 milestone year or attainment contingency measures for these NAAQS.

[11] Letter dated April 27, 2017, from Richard Corey, Executive Officer, CARB, to Alexis Strauss, Acting Regional Administrator, EPA Region IX, with enclosures.

[12] The following chapters in the Plan are not relevant to the 2006 or 2012 $PM_{2.5}$ NAAQS and were not reviewed as part of this action: Chapter 7, ''Current and Future Air Quality—Desert Nonattainment Areas,'' describes the air quality status of the Coachella Valley, including emissions inventories, designations, and current and future air quality. Chapter 8, ''Looking Beyond Current Requirements,'' assesses the South Coast air basin's status with respect to the 2015 8-hour ozone standard of 70 ppb. Chapter 9, ''Air Toxic Control Strategy,'' examines the ongoing efforts to reduce health risk from toxic air contaminants, co-benefits from reducing criteria pollutants, and potential future actions; and Chapter 10, ''Climate and Energy,'' provides a description of current and projected energy demand and supply issues in the South Coast air basin, and the relationship between air quality improvement and greenhouse gas mitigation goals.

• Appendix IV–C (''Regional Transportation Strategy and Control Measures'') describes the Southern California Association of Governments' (SCAG) ''Final 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy'' and transportation control measures included in the 2016 $PM_{2.5}$ Plan.

• Appendix V (''Modeling and Attainment Demonstrations'') provides the details of the regional modeling for the attainment demonstration.

• Appendix VI (''Compliance with Other Clean Air Act Requirements'') provides the District's demonstration that the Plan complies with specific federal and California Clean Air Act requirements.

CARB adopted additional documents on March 23, 2017 that supplement the analyses and demonstrations adopted by the SCAQMD on March 3, 2017. In particular, the ''CARB Staff Report, ARB Review of 2016 AQMP for the South Coast Air Basin and Coachella Valley'' (''CARB Staff Report'') includes in Appendix D a weight of evidence analysis for the SCAQMD's attainment demonstration for the 24-hour and annual $PM_{2.5}$ NAAQS. Also, to supplement the contingency measure element of the 2016 $PM_{2.5}$ Plan, CARB submitted a letter dated January 29, 2019 containing the District's commitment to adopt a control measure by a date certain for purposes of satisfying CAA contingency measure requirements for the 2006 and 2012 $PM_{2.5}$ NAAQS.[13] The District later clarified its January 29, 2019 commitment in a letter dated February 12, 2020, and CARB submitted the District's clarified commitment together with related State commitments to the EPA by letter dated March 3, 2020.[14] We discuss these commitments as part of our evaluation of the contingency measure element of the 2016 $PM_{2.5}$ Plan, in section V.H.

We present our evaluation of the 2016 $PM_{2.5}$ Plan in Section V of this proposed rule.

III. Clean Air Act Requirements for Moderate $PM_{2.5}$ Nonattainment Area Plans

With respect to the statutory requirements for particulate matter (PM) attainment plans, the general nonattainment area planning requirements of title I, part D of the CAA are found in subpart 1, and the Moderate area planning requirements specifically for PM are found in subpart 4.

The EPA has a longstanding general guidance document that interprets the 1990 amendments to the CAA, commonly referred to as the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990 (''General Preamble'').[15] The General Preamble addresses the relationship between the subpart 1 and subpart 4 requirements and provides recommendations to states for meeting certain statutory requirements for PM attainment plans. As explained in the General Preamble, specific requirements applicable to Moderate area attainment plan SIP submissions for the PM NAAQS are set forth in subpart 4 of part D, title I of the Act, but such SIP submissions must also meet the general attainment planning provisions in subpart 1 of part D, title I of the Act, to the extent these provisions ''are not otherwise subsumed by, or integrally related to,'' the more specific subpart 4 requirements.[16]

To implement the $PM_{2.5}$ NAAQS, the EPA has also promulgated the ''Fine Particle Matter National Ambient Air Quality Standard: State Implementation Plan Requirements; Final Rule'' (hereinafter, the ''$PM_{2.5}$ SIP Requirements Rule'').[17] The $PM_{2.5}$ SIP Requirements Rule establishes regulatory requirements and provides additional guidance applicable to attainment plan submissions for the $PM_{2.5}$ NAAQS, including the 2006 24-hour and 2012 annual $PM_{2.5}$ NAAQS at issue in this action.

The general subpart 1 statutory requirements for attainment plans include: (i) The section 172(c)(1) requirement for reasonably available control measures (RACM)/reasonably available control technology (RACT) and attainment demonstrations; (ii) the section 172(c)(2) requirement to demonstrate reasonable further progress (RFP); (iii) the section 172(c)(3) requirement for emissions inventories; (iv) the section 172(c)(5) requirement for a nonattainment new source review (NNSR) permitting program; and (v) the section 172(c)(9) requirement for contingency measures.

The more specific subpart 4 statutory requirements for Moderate $PM_{2.5}$ nonattainment areas include: (i) The section 189(a)(1)(A) and 189(e) NNSR permit program requirements; (ii) the section 189(a)(1)(B) requirement for attainment demonstrations; (iii) the section 189(a)(1)(C) requirement for RACM; and (iv) the section 189(c) requirements for RFP and quantitative milestones. Under subpart 4, states with Moderate $PM_{2.5}$ nonattainment areas must provide for attainment in the area as expeditiously as practicable but no later than the latest permissible attainment date under CAA section 188(c), *i.e.,* December 31, 2021 for the 2012 $PM_{2.5}$ NAAQS in the South Coast.[18] In addition, under subpart 4, direct $PM_{2.5}$ and all precursors to the formation of $PM_{2.5}$ are subject to control unless the EPA approves a demonstration from the State establishing that a given precursor does not contribute significantly to $PM_{2.5}$ levels that exceed the $PM_{2.5}$ NAAQS in the area.[19]

IV. Completeness Review of the South Coast $PM_{2.5}$ Plan

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

Both the District and CARB satisfied applicable statutory and regulatory requirements for reasonable public notice and hearing prior to adoption and

[13] Letter dated February 13, 2019, from Michael Benjamin, Air Quality Planning and Science Division, CARB, to Mike Stoker, Regional Administrator, EPA Region IX (transmitting letter dated January 29, 2019, from Wayne Nastri, Executive Officer, SCAQMD, to Richard Corey, Executive Officer, CARB). In its January 29, 2019 letter, the District committed to modify an existing rule or adopt a new rule to create a contingency measure that would be triggered if the area fails to meet an RFP requirement, to submit a quantitative milestone report, to meet a quantitative milestone, or to attain the 2006 24-hour or 2012 annual $PM_{2.5}$ NAAQS.

[14] Letter dated March 3, 2020, from Michael Benjamin, Air Quality Planning and Science Division, CARB, to Mike Stoker, Regional Administrator, EPA Region IX (transmitting letter dated February 12, 2020, from Wayne Nastri, Executive Officer, SCAQMD, to Richard Corey, Executive Officer, CARB). In its February 12, 2020 letter, the District specifically committed to modify Rule 445 (''Wood Burning Devices'') to lower the mandatory wood burning curtailment threshold in the rule following any of the EPA findings listed in 40 CFR 51.1014(a). In its March 3, 2020 letter, CARB committed to submit the revised District rule to the EPA as a SIP revision by a date certain.

[15] General Preamble, 57 FR 13498 (April 16, 1992).

[16] Id. at 13538.

[17] 81 FR 58010 (August 24, 2016).

[18] Generally, under CAA section 188(c), the latest permissible attainment date for a Moderate nonattainment area is the end of the sixth calendar year after the area's designation as nonattainment. Because the EPA designated and classified the South Coast as a Moderate nonattainment area for the 2012 $PM_{2.5}$ NAAQS effective April 15, 2015 (80 FR 2206, 2215), the latest permissible attainment date for these NAAQS in the South Coast is December 31, 2021.

[19] 40 CFR 51.1006 and 51.1009.

submission of the 2016 $PM_{2.5}$ Plan. The District conducted numerous public workshops, provided public comment periods, and held a public hearing prior to its adoption of the Plan on March 3, 2017.[20] CARB also provided the required public notice and opportunity for public comment prior to its March 23, 2017 public hearing and adoption of the Plan.[21] Each submission includes proof of publication of notices for the respective public hearings, and transcripts for the public hearings.[22] We find, therefore, that the 2016 $PM_{2.5}$ Plan meets the requirements for reasonable notice and public hearings in CAA sections 110(a) and 110(l).

CAA section 110(k)(1)(B) requires the EPA to determine whether a SIP submittal is complete within 60 days of receipt. This section also provides that any plan that the EPA has not affirmatively determined to be complete or incomplete will become complete by operation of law six months after the date of submission. The EPA's SIP completeness criteria are found in 40 CFR part 51, Appendix V. The 2016 $PM_{2.5}$ Plan, which CARB submitted on April 27, 2017, became complete by operation of law on October 27, 2017.

V. Review of the South Coast $PM_{2.5}$ Plan

A. Emissions Inventory

1. Requirements for Emissions Inventories

CAA section 172(c)(3) requires that each SIP include a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in the nonattainment area. We refer to this inventory as the ''base year inventory.'' The EPA has established regulatory requirements for base year and other emissions inventories in the $PM_{2.5}$ SIP Requirements Rule [23] and issued guidance concerning emissions inventories for $PM_{2.5}$ nonattainment areas.[24]

The base year emissions inventory should provide a state's best estimate of actual emissions from all sources of the relevant pollutants in the area, *i.e.,* all emissions that contribute to the formation of a particular NAAQS pollutant. For the $PM_{2.5}$ NAAQS, the base year emissions inventory must include direct $PM_{2.5}$ emissions, separately reported filterable and condensable $PM_{2.5}$ emissions,[25] and emissions of all chemical precursors to the formation of secondary $PM_{2.5}$: NO_X, SO_2, VOC, and ammonia.[26] In addition, the emissions inventory base year for a Moderate $PM_{2.5}$ nonattainment area must be one of the three years for which monitored data were used to designate the area as nonattainment, or another technically appropriate year justified by the state in its Moderate area SIP submission.[27]

A state must include in its SIP submission documentation explaining how the emissions data were calculated. In estimating mobile source emissions, a state should use the latest emissions models and planning assumptions available at the time it develops the SIP submission. States are also required to use the EPA's ''Compilation of Air Pollutant Emission Factors'' (AP–42) road dust method for calculating re-entrained road dust emissions from paved roads.[28] [29] At the time the 2016 $PM_{2.5}$ Plan was developed, California was required to use EMFAC2014 to estimate tailpipe and brake and tire wear emissions of $PM_{2.5}$, NO_X, SO_2, and VOC from on-road mobile sources.[30]

In addition to the base year inventory submitted to meet the requirements of CAA section 172(c)(3), a state must also submit future ''baseline inventories'' for the projected attainment year, each RFP milestone year, and any other year of significance for meeting applicable CAA requirements.[31] By ''baseline inventories'' (referred to in the 2016 $PM_{2.5}$ Plan as ''baseline inventories'' or ''future baseline inventories''), we mean projected emissions inventories for future years that account for, among other things, the ongoing effects of economic growth and adopted emission control requirements. The SIP submission should include documentation to explain how the state calculated the emissions projections.

2. Emissions Inventories in the 2016 $PM_{2.5}$ Plan

The annual average planning inventories for direct $PM_{2.5}$ and all $PM_{2.5}$ precursors (NO_X, SO_X,[32] VOC, and ammonia) for the South Coast $PM_{2.5}$ nonattainment area, together with documentation for the inventories, are found in Chapter 3, Appendix III, and Appendix V of the Plan. Appendix V also contains additional inventory documentation specific to the air quality modeling inventories. These portions of the Plan contain annual average daily inventories of actual emissions for the 2012 base year, and projected inventories for the future 2019 RFP baseline year, the 2021 Moderate area attainment year, and the 2022 post-attainment RFP year.[33] The annual

[20] SCAQMD, Notice of Public Hearing, ''Proposed 2016 Air Quality Management Plan for the South Coast Air Quality Management District and Report on the Health Impacts of Particulate Matter Air Pollution in the South Coast Air Basin,'' December 14, 2016.

[21] CARB, ''Notice of Public Meeting to Consider Adopting the 2016 Air Quality Management Plan for Ozone and $PM_{2.5}$ for the South Coast Air Basin and the Coachella Valley,'' March 6, 2017.

[22] Memorandum dated March 6, 2017, from Denise Garzaro, Clerk of the Board, SCAQMD, to Arlene Martinez, Administrative Secretary, Planning, Rule Development, and Area Sources, Subject: ''SIP Documentation, January 24, 2017; and California Air Resources Board, Notice of Public Meeting to Consider Adopting the 2016 Air Quality Management Plan for Ozone and $PM_{2.5}$ for the South Coast Air Basin and the Coachella Valley.''

[23] 40 CFR 51.1008.

[24] 81 FR 58010, 58078–58079 and ''Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations,'' EPA, May 2017 (''Emissions Inventory Guidance''), available at *https://www.epa.gov/air-emissions-inventories/air-emissions-inventory-guidance-implementation-ozone-and-particulate.*

[25] The Emissions Inventory Guidance identifies the types of sources for which the EPA expects states to provide condensable PM emissions inventories. Emissions Inventory Guidance, section 4.2.1 (''Condensable PM Emissions''), 63–65.

[26] 40 CFR 51.1008.

[27] 40 CFR 51.1008(a)(1)(i).

[28] The EPA released an update to AP–42 in January 2011 that revised the equation for estimating paved road dust emissions based on an updated data regression that included new emissions tests results. (76 FR 6328, February 4, 2011). CARB used the revised 2011 AP–42 methodology in developing on-road mobile source emissions; see *http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2016.pdf.*

[29] AP–42 has been published since 1972 as the primary source of the EPA's emission factor information. It contains emission factors and process information for more than 200 air pollution source categories. A source category is a specific industry sector or group of similar emitting sources. The emission factors have been developed and compiled from source test data, material balance studies, and engineering estimates.

[30] The EMFAC model (short for EMission FACtor) is a computer model developed by CARB. The EPA approved and announced the availability of EMFAC2014 for use in SIP development and transportation conformity in California on December 14, 2015 (80 FR 77337). The EPA's approval of the EMFAC2014 emissions model for SIP and conformity purposes was effective on the date of publication in the **Federal Register**. On August 15, 2019, the EPA approved and announced the availability of EMFAC2017, the latest update to the EMFAC model for use by state and local governments to meet CAA requirements (84 FR 41717). EMFAC2017 was not available to the State and District at the time they were developing the 2016 $PM_{2.5}$ Plan.

[31] 40 CFR 51.1008(a)(2) and 51.1012(a)(2); see also EPA, ''Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations,'' May 2017, available at *https://www.epa.gov/sites/production/files/2017-07/documents/ei_guidance_may_2017_final_rev.pdf.*

[32] The 2016 $PM_{2.5}$ Plan generally uses ''sulfur oxides'' or ''SO_X'' in reference to SO_2 as a precursor to the formation of $PM_{2.5}$. We use SO_X and SO_2 interchangeably throughout this notice.

[33] The 2016 $PM_{2.5}$ Plan includes summer day inventories for ozone planning purposes, and inventories for Serious area planning purposes for

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average daily inventory is used to evaluate sources of emissions for attainment of the 2012 $PM_{2.5}$ NAAQS.

Future emissions forecasts are primarily based on demographic and economic growth projections provided by SCAG. Baseline inventories reflect all District control measures adopted by December 2015 and CARB rules adopted by November 2015. Growth factors used to project these baseline inventories are derived mainly from data obtained from SCAG.[34]

Each emissions inventory is divided into two source classifications: Stationary sources (*i.e.,* point sources and area sources) and mobile sources (*i.e.,* on-road and non-road sources of emissions). Point sources in the South Coast air basin that emit four tons per year (tpy) or more of PM, NO_X, SO_X, or VOC report annual emissions to the District. Point source emissions for the 2012 base year emissions inventory are generally based on reported data from facilities using the District's Annual Emissions Reporting program.[35] Area sources include smaller emission sources distributed across the nonattainment area. CARB and the District estimate emissions for about 400 area source categories using established inventory methods, including publicly available emission factors and activity information. Activity data may come from national survey data such as from the Energy Information Administration or from local sources such as the Southern California Gas Company, paint suppliers, and District databases. Emission factors can be based on a number of sources including source tests, compliance reports, and the EPA's AP–42.

Emissions inventories are constantly being revised and improved. Between the finalization of the South Coast 2012 Air Quality Management Plan (''2012 AQMP'') and the development of the 2016 $PM_{2.5}$ Plan, the District improved and updated its emissions estimation methodologies for liquified petroleum gas combustion sources, natural gas combustion sources, Regional Clean Air Incentives Market (RECLAIM) NO_X emissions sources (based on 2015 program amendments), livestock waste management operations, gasoline dispensing facilities, composting operations, oil and gas production, and architectural coatings.

On-road emissions inventories are calculated using CARB's EMFAC2014 model and the travel activity data provided by SCAG in ''The 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy.'' [36] Re-entrained paved road dust emissions are calculated using the EPA's AP–42 road dust methodology.[37]

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 uses several models to estimate emissions for more than one hundred off-road equipment categories.[38] Aircraft emissions are developed in conjunction with the airports in the region.

Table 1 provides a summary of the District's 2012 base year annual average emissions estimates for direct $PM_{2.5}$ and all $PM_{2.5}$ precursors. These inventories provide the basis for the control measure analysis and the RFP and impracticability demonstrations in the 2016 $PM_{2.5}$ Plan. For a more detailed discussion of the inventories, see Appendix III of the Plan.

TABLE 1—SOUTH COAST 2012 BASE YEAR EMISSIONS

[Annual average, tons per day]

	Direct $PM_{2.5}$	NO_X	SO_X	VOC	Ammonia
Stationary Sources	44	70	10	212	63
On-Road Mobile Sources	14	317	2	158	18
Off-Road Mobile Sources	8	153	6	100	0
Total	66	540	18	470	81

Source: 2016 $PM_{2.5}$ Plan, Table 3–2. Values may not be precise due to rounding.

Condensable Particulate Matter

The $PM_{2.5}$ SIP Requirements Rule states that ''[t]he inventory shall include direct $PM_{2.5}$ emissions, separately reported $PM_{2.5}$ filterable and condensable emissions, and emissions of the scientific $PM_{2.5}$ precursors, including precursors that are not $PM_{2.5}$ plan precursors pursuant to a precursor demonstration under § 51.1006.'' [39] On June 15, 2018, the SCAQMD submitted a technical supplement to the SIP containing emissions estimates for both condensable and filterable $PM_{2.5}$ emissions from specified sources of direct $PM_{2.5}$ in the South Coast area.[40] The supplement provides filterable and condensable emissions estimates, expressed as annual average $PM_{2.5}$ emissions, for all of the identified source categories for the 2012 base year, the 2019 RFP year, the 2021 Moderate area attainment year, and the 2022 RFP year, as well as subsequent years.[41]

The 2016 $PM_{2.5}$ Plan relies on several SIP-approved rules that regulate direct PM emissions as part of the $PM_{2.5}$ control strategy, including Rule 445 (''Wood-Burning Devices''), as amended May 3, 2013; Rule 1138 (''Control of Emissions from Restaurant Operations''), adopted November 14, 1997; and Rule 1155 (''Particulate Matter (PM) Control Devices''), as amended May 2, 2014. As part of our action on any rules that regulate direct $PM_{2.5}$ emissions, we evaluate the emission limits in the rule to ensure that they appropriately address condensable PM, as required by 40 CFR 51.1008(a)(1)(iv). We note that the SIP-

both the 2006 and 2012 $PM_{2.5}$ NAAQS. The 2016 $PM_{2.5}$ Plan therefore includes annual average and summer day inventories for all years between 2017 and 2031, except 2029. 2016 $PM_{2.5}$ Plan, Appendix III, Attachment A.

[34] Id. at III–2–6.

[35] Information about the SCAQMD's Annual Emissions Reporting program is available at *http://www.aqmd.gov/home/rules-compliance/compliance/annual-emission-reporting.*

[36] SCAG's ''The 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy'' is available at *http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx.*

[37] CARB, Miscellaneous Process Methodology 7.9 Entrained Road Travel, Paved Road Dust, (Revised and updated, November 2016) available at *https://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2016.pdf.*

[38] 2016 $PM_{2.5}$ Plan, III–1–24.

[39] 40 CFR 51.1008(a)(1)(iv).

[40] Letter dated June 15, 2018, from Philip Fine, Deputy Executive Officer, SCAQMD, to Amy Zimpfer, Associate Director, EPA Region IX, Subject: ''Condensable and Filterable Portions of $PM_{2.5}$ emissions in the 2016 AQMP.''

[41] Id., Appendix A.

approved version of Rule 1138 requires testing according to the District's protocol, which requires measurement of both condensable and filterable PM in accordance with SCAQMD Test Method 5.1.[42] We also note that the SIP-approved version of Rule 1155 requires measurement of both condensable and filterable PM in accordance with SCAQMD Test Methods 5.1, 5.2, or 5.3 as applicable.[43] [44]

3. The EPA's Evaluation and Proposed Action

The emissions inventories in the 2016 $PM_{2.5}$ Plan were made available to the public for comment and were subject to public hearing at both the District and State levels.[45]

The inventories in the 2016 $PM_{2.5}$ Plan are based on the most current and accurate information available to the State and District at the time the Plan and its inventories were being developed, including the latest EPA-approved version of California's mobile source emissions model that was available to the State and District at the time they were developing the Plan, EMFAC2014, and the EPA's most recent AP–42 methodology for paved road dust.[46] The inventories comprehensively address all source categories in the South Coast and were developed consistent with the EPA's regulations and inventory guidance. In accordance with 40 CFR 51.1008(a), the 2012 base year is one of the three years for which monitored data were used for designating the area, and it represents actual annual average emissions of all sources within the nonattainment area. Direct $PM_{2.5}$ and all $PM_{2.5}$ precursors are included in the inventories, and filterable and condensable direct $PM_{2.5}$ emissions are identified separately. For these reasons, we are proposing to approve the 2012 base year emissions inventory in the 2016 $PM_{2.5}$ Plan as meeting the requirements of CAA section 172(c)(3) and 40 CFR 51.1008. We are also proposing to find that the future year baseline inventories in the Plan satisfy the requirements of 40 CFR 51.1008(a)(2) and 51.1012(a)(2) and provide an adequate basis for the RACM, RFP, and impracticability demonstrations in the 2016 $PM_{2.5}$ Plan.[47]

B. $PM_{2.5}$ Precursors

1. Requirements for the Control of $PM_{2.5}$ Precursors

The provisions of subpart 4 of part D, title I of the CAA do not define the term ''precursor'' for purposes of $PM_{2.5}$, nor do they explicitly require the control of any specifically identified PM precursor. The statutory definition of ''air pollutant'' in CAA section 302(g), however, provides that the term ''includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used.'' The EPA has identified NO_X, SO_2, VOC, and ammonia as precursors to the formation of $PM_{2.5}$. Accordingly, the attainment plan requirements of subpart 4 apply to emissions of all four precursor pollutants and direct $PM_{2.5}$ from all types of stationary, area, and mobile sources, except as otherwise provided in the Act (*e.g.,* in CAA section 189(e)).

Section 189(e) of the Act requires that the control requirements for major stationary sources of direct PM_{10} (which includes $PM_{2.5}$) also apply to major stationary sources of PM_{10} precursors, except where the Administrator determines that such sources do not contribute significantly to PM_{10} levels that exceed the standard in the area. Section 189(e) contains the only express exception to the control requirements under subpart 4 (*e.g.,* requirements for RACM, RACT, best available control measures (BACM) and best available control technology (BACT), most stringent measures (MSM), and new source review (NSR)) for sources of direct $PM_{2.5}$ and $PM_{2.5}$ precursor emissions. Although section 189(e) explicitly addresses only major stationary sources, the EPA interprets the Act as authorizing it also to determine, under appropriate circumstances, that regulation of specific $PM_{2.5}$ precursors from other source categories in a given nonattainment area is not necessary. For example, under the EPA's longstanding interpretation of the control requirements that apply to stationary and mobile sources of PM_{10} precursors in the nonattainment area under CAA section 172(c)(1) and subpart 4,[48] a state may demonstrate in a SIP submission that control of a certain precursor pollutant is not necessary in light of its insignificant contribution to ambient PM_{10} levels in the nonattainment area.[49]

Under the $PM_{2.5}$ SIP Requirements Rule, a state may elect to submit to the EPA a ''comprehensive precursor demonstration'' for a specific nonattainment area to show that emissions of a particular precursor from all existing sources located in the nonattainment area do not contribute

[42] Rule 1138 (adopted November 14, 1997), paragraph (c)(1) and (g), SCAQMD Protocol paragraph 3.1, and SCAQMD Protocol, ''Determination of Particulate and Volatile Organic Compound Emissions from Restaurant Operations,'' November 14, 1997 (available at *https://www.regulations.gov/contentStreamer?documentId=EPA-R09-OAR-2017-0490-0068&contentType=pdf*). The EPA approved Rule 1138 into the SIP on July 11, 2011 (66 FR 36170).

[43] Rule 1155 (as amended May 2, 2014), paragraph (e)(6). The EPA approved Rule 1155 into the SIP on March 16, 2015 (80 FR 13495).

[44] SCAQMD Test Method 5.1, ''Determination of Particulate Matter Emissions from Stationary Sources Using a Wet Impingement Train,'' March 1989; SCAQMD Test Method 5.2, ''Determination of Particulate Matter Emissions from Stationary Sources Using Heated Probe and Filter,'' March 1989; and SCAQMD Test Method 5.3, ''Determination of Particulate Matter Emissions from Stationary Sources Using an in-Stack Filter,'' October 2005.

[45] SCAQMD Board Resolution 17–2, 3 and CARB Resolution 17–8, 4.

[46] SCAG's on-road emissions inventory includes power take off (PTO) as part of the heavy-duty truck category, whereas CARB's motor vehicle emissions budgets (MVEB) includes PTO as a standalone vehicle category. See email dated July 9, 2019, from Nesamani Kalandiyur, CARB, to Karina O'Connor, EPA. As a result, SCAG's on-road emissions estimates used in the air quality modeling are slightly lower than CARB's MVEBs and the modeled air quality concentrations in the 2016 $PM_{2.5}$ Plan are biased slightly low. Thus, the modeled concentrations are conservative and consistent with the District's conclusion that attainment by the Moderate area attainment date of December 31, 2021 is impracticable.

[47] The baseline emissions projections in the 2016 $PM_{2.5}$ Plan assume implementation of CARB's Zero Emissions Vehicle (ZEV) sales mandate and greenhouse gas (GHG) standards, based on the approved EMFAC2014 model and assumptions that were available at the time of the SIP's development. On September 27, 2019, the U.S. Department of Transportation and the EPA (the Agencies) issued a notice of final rulemaking for the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program* (SAFE I) that, among other things, withdrew the EPA's 2013 waiver of preemption of CARB's ZEV sales mandate and vehicle GHG standards. 84 FR 51310 (September 27, 2019). See also proposed SAFE rule at 83 FR 42986 (August 24, 2018). In response to SAFE I, CARB developed EMFAC off-model adjustment factors to account for anticipated changes in on-road emissions. On March 12, 2020, the EPA informed CARB that the EPA considers these adjustment factors to be acceptable for future use. See letter dated March 12, 2020 from Elizabeth J. Adams, EPA Region IX, to Steven Cliff, CARB. On April 30, 2020 (85 FR 24174), the Agencies issued a notice of final rulemaking titled: *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks* (SAFE II), establishing the federal fuel economy and GHG vehicle emissions standards based on the August 2018 SAFE proposal. The effect of both SAFE final rules (SAFE I and SAFE II) on the on-road vehicle mix in the South Coast nonattainment area and on the resulting vehicular emissions is expected to be minimal during the timeframe addressed in this SIP revision. Therefore, we anticipate the SAFE final rules would not materially change the demonstration that it is impracticable for the South Coast 2012 $PM_{2.5}$ Moderate area to attain by the Moderate area attainment date of December 31, 2021.

[48] General Preamble, 13539–13542.

[49] Courts have upheld this approach to the requirements of subpart 4 for PM_{10}. See, *e.g., Assoc. of Irritated Residents* v. *EPA, et al.,* 423 F.3d 989 (9th Cir. 2005).

significantly to $PM_{2.5}$ levels that exceed the standard in the area.[50] If the EPA determines that the contribution of the precursor to $PM_{2.5}$ levels in the area is not significant and approves the demonstration, the state is not required to control emissions of the relevant precursor from existing sources in the attainment plan.[51]

We are evaluating the 2016 $PM_{2.5}$ Plan in accordance with the presumption embodied within subpart 4 that all $PM_{2.5}$ precursors must be addressed in the State's evaluation of potential control measures, unless the State adequately demonstrates that emissions of a particular precursor or precursors do not contribute significantly to ambient $PM_{2.5}$ levels that exceed the $PM_{2.5}$ NAAQS in the nonattainment area. In reviewing any determination by the State to exclude a $PM_{2.5}$ precursor from the required evaluation of potential control measures, we consider both the magnitude of the precursor's contribution to ambient $PM_{2.5}$ concentrations in the nonattainment area and the sensitivity of ambient $PM_{2.5}$ concentrations in the area to reductions in emissions of that precursor.

2. Control of $PM_{2.5}$ Precursors in the 2016 $PM_{2.5}$ Plan

The 2016 $PM_{2.5}$ Plan discusses the five primary pollutants that contribute to the mass of the ambient aerosol (*i.e.,* directly emitted $PM_{2.5}$, NO_X, SO_X, VOC, and ammonia), and states that various combinations of reductions in these pollutants could all provide a path to clean air.[52] The Plan assesses and presents the relative value of each ton of precursor emission reductions, considering the resulting ambient improvements in $PM_{2.5}$ air quality expressed in micrograms per cubic meter.[53] As presented in the weight of evidence discussion, trends in $PM_{2.5}$ and NO_X emissions suggest a direct response between lower emissions and improved air quality. The Community Multiscale Air Quality (CMAQ) model simulations in the 2016 $PM_{2.5}$ Plan provide a set of response factors for direct $PM_{2.5}$, NO_X, SO_X, and VOCs, based on improvements to ambient $PM_{2.5}$ levels resulting from reductions of each pollutant. The contribution of ammonia emissions is embedded as a component of the NO_X and SO_X factors because ammonium nitrate and ammonium sulfate are the resultant particulate species formed in the atmosphere.

The 2016 $PM_{2.5}$ Plan describes how reductions in NO_X, SO_X, VOC, and ammonia emissions contribute to attainment of the $PM_{2.5}$ standard in the South Coast area and contains the District's evaluation of available control measures for all four of these $PM_{2.5}$ precursor pollutants, in addition to direct $PM_{2.5}$, consistent with the regulatory presumptions under subpart 4. The 2016 $PM_{2.5}$ Plan also contains a discussion of the control requirements applicable to major stationary sources under CAA section 189(e).[54]

3. The EPA's Evaluation and Proposed Action

Based on a review of the information provided in the 2016 $PM_{2.5}$ Plan and other information available to the EPA, we agree with the State's conclusion that all four chemical precursors to the formation of $PM_{2.5}$ must be regulated for purposes of attaining the 2012 $PM_{2.5}$ NAAQS in the South Coast area. We discuss the State's evaluation of potential control measures for direct $PM_{2.5}$, NO_X, SO_X, VOC, and ammonia in section V.D.

C. Air Quality Modeling

1. Requirements for Air Quality Modeling

Section 189(a)(1)(B) of the CAA requires each state in which a Moderate area is located to submit a plan that includes a demonstration (including air quality modeling) either (i) that the plan will provide for attainment of the $PM_{2.5}$ NAAQS by the applicable attainment date, or (ii) that attainment by that date is impracticable. The 2016 $PM_{2.5}$ Plan includes a demonstration that attainment by the Moderate attainment date is impracticable.

The EPA's $PM_{2.5}$ modeling guidance[55] (''Modeling Guidance'' and ''Modeling Guidance Update'') recommends that a photochemical model, such as the Comprehensive Air Quality Model with Extensions (CAMx) or Community Multiscale Air Quality Model (CMAQ), be used to simulate a base case, with meteorological and emissions inputs reflecting a base case year, to replicate concentrations monitored in that year. The model application to the base year undergoes a performance evaluation to ensure that it satisfactorily corroborates the concentrations monitored in that year. The model may then be used to simulate emissions occurring in other years required for a plan, namely the base year (which may differ from the base case year) and future year.[56] The modeled response to the emission changes between those years is used to calculate relative response factors (RRFs) that are applied to the design value in the base year to estimate the projected design value in the future year for comparison against the NAAQS. Separate RRFs are estimated for each chemical species component of $PM_{2.5}$, and for each quarter of the year, to reflect their differing responses to seasonal meteorological conditions and emissions. Because each species is handled separately, before applying an RRF, the base year design value must be speciated using available chemical species measurements—that is, each day's measured $PM_{2.5}$ design value must be split into its species components. The Modeling Guidance provides additional detail on the recommended approach.[57]

The EPA has not issued modeling guidance specific to impracticability demonstrations but believes that a state seeking to make such a demonstration generally should provide air quality modeling similar to that required for an attainment demonstration.[58] The main difference is that for an impracticability demonstration, the implementation of the SIP control strategy (including

[50] 40 CFR 51.1006(a)(1).

[51] Id.

[52] 2016 $PM_{2.5}$ Plan, VI–F–1 and V–6–61.

[53] Id. at VI–A–15.

[54] Id., Appendix VI–F. In a separate rulemaking to approve revisions to SCAQMD's NNSR program, the EPA determined that the control requirements applicable under the SCAQMD SIP to major stationary sources of direct $PM_{2.5}$ also apply to major stationary sources of NO_X, SO_X, and VOC, and that major stationary sources of ammonia do not contribute significantly to $PM_{2.5}$ levels that exceed the $PM_{2.5}$ standards in the area. (80 FR 24821, May 1, 2015). This rulemaking addressed the control requirements of CAA section 189(e) only for NNSR purposes and not for attainment planning purposes under subparts 1 and 4 of part D, title I of the Act.

[55] Memorandum dated November 29, 2018, from Richard Wayland, Air Quality Assessment Division, Office of Air Quality Planning and Standards, EPA, to Regional Air Division Directors, EPA, Subject: ''Modeling Guidance for Demonstrating Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze,'' (''Modeling Guidance''), and Memorandum dated June 28, 2011 from Tyler Fox, Air Quality Modeling Group, OAQPS, EPA, to Regional Air Program Managers, EPA, Subject: ''Update to the 24 Hour $PM_{2.5}$ NAAQS Modeled Attainment Test,'' (''Modeling Guidance Update'').

[56] In this section, we use the terms ''base case,'' ''base year'' or ''baseline,'' and ''future year'' as described in section 2.3 of the EPA's Modeling Guidance. The ''base case'' modeling simulates measured concentrations for a given time period, using emissions and meteorology for that same year. The modeling ''base year'' (which can be the same as the base case year) is the emissions starting point for the plan and for projections to the future year, both of which are modeled for the attainment demonstration. Modeling Guidance, 37–38. Note that CARB sometimes uses ''base year'' synonymously with ''base case'' and ''reference year'' instead of ''base year.''

[57] Modeling Guidance, section 4.4, ''What is the Modeled Attainment Tests for the Annual Average $PM_{2.5}$ NAAQS.''

[58] 81 FR 58010, 58048.

RACM) does not result in attainment of the standard by the Moderate area attainment date.

For an attainment demonstration, a thorough review of all modeling inputs and assumptions (including consistency with EPA guidance) is especially important because the modeling must ultimately support a conclusion that the plan (including its control strategy) will provide for timely attainment of the applicable NAAQS. In contrast, for an impracticability demonstration, the end point is a reclassification to Serious, which triggers the requirement for a new Serious area attainment plan with a new air quality modeling analysis, and a new control strategy.[59] Thus, the Serious area planning process would provide an opportunity to refine the modeling analysis and/or correct any technical shortcomings in the impracticability demonstration. Therefore, the burden of proof will generally be lower for an impracticability demonstration compared to an attainment demonstration.[60]

2. Air Quality Modeling in the 2016 $PM_{2.5}$ Plan

Air quality modeling is discussed in Chapter 5 and Appendix V of the 2016 $PM_{2.5}$ Plan. A brief description of the modeling and our evaluation of it follows. More detailed information about the modeling in the Plan is available in section III of our technical support document (TSD) for this proposed action.[61]

Annual $PM_{2.5}$ Modeling Approach

The District conducted CMAQ[62] simulations for each day in the 2012 base year. It generated site- and species-specific RRFs for the ammonium ion, nitrate ion, sulfate ion, organic carbon, elemental carbon, sea salt, and a combined grouping of other primary $PM_{2.5}$ material for each future year simulation, and calculated future year design values by multiplying the species- and site-specific RRFs by the corresponding quarterly mean component concentration. The District summed the quarterly mean components to determine quarterly mean $PM_{2.5}$ concentrations, which it subsequently averaged to determine the annual design values. The future year design values reflect the weighted quarterly average concentration from the projections of five years of data. The District projected future year annual $PM_{2.5}$ design values for the 2021 Moderate area attainment year and the 2025 Serious area attainment year, for the 2012 $PM_{2.5}$ standard of 12 $\mu g/m^3$.[63]

Future Air Quality

Simulations of 2021 baseline emissions (no additional controls) and 2021 control emissions were conducted to assess future annual $PM_{2.5}$ levels in the South Coast air basin. The 2021 baseline simulation used emission levels projected from the 2012 base year that reflect all adopted control measures to be implemented by December 31, 2021. The 2021 control simulation reflects the effects of the control strategy on future $PM_{2.5}$ design values. Simulations of both the 2021 baseline and 2021 control emissions indicate that the 2012 annual $PM_{2.5}$ standard will not be met in the South Coast in 2021, even when all controls for direct $PM_{2.5}$ and $PM_{2.5}$ precursors are implemented. The projected 2021 control scenario design value is 12.3 $\mu g/m^3$ at Mira Loma, which is typically the monitoring site that records the highest $PM_{2.5}$ levels in the South Coast air basin.

Table 2 shows future annual $PM_{2.5}$ air quality projections at the Mira Loma monitoring site and the four other $PM_{2.5}$ monitoring sites equipped with comprehensive particulate species characterization. Shown in the table are the base year design values for 2012 along with projections for 2021.

TABLE 2—FUTURE ANNUAL $PM_{2.5}$ AIR QUALITY PROJECTIONS AT SELECTED MONITORING SITES IN THE SOUTH COAST AIR BASIN

[$\mu g/m^3$]

Monitoring site location	2012	2021 Control
Anaheim	10.6	9.1
Fontana	12.6	10.4
Los Angeles	12.4	10.6
Mira Loma	14.9	12.3
Rubidoux	13.2	10.9

Source: 2016 $PM_{2.5}$ Plan, Table 5–5 and Table V–6–6.

3. The EPA's Evaluation and Conclusion

The EPA evaluated the District's choice of model for the impracticability demonstration and the extensive discussion in the Plan about modeling procedures, tests, and performance analyses. We find the District's analyses consistent with EPA guidance on modeling for $PM_{2.5}$ attainment planning purposes. Based on these reviews, we find that the modeling in the Plan is adequate for the purposes of supporting the RFP demonstration and the demonstration of impracticability in the 2016 $PM_{2.5}$ Plan.

D. Reasonably Available Control Measures and Control Strategy

1. Requirements for RACM/RACT and Control Strategies

The general subpart 1 attainment plan requirement for RACM/RACT is described in CAA section 172(c)(1), which requires that attainment plan submissions ''provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology)'' and provide for attainment of the NAAQS.

The attainment planning requirements specific to $PM_{2.5}$ under subpart 4 likewise impose upon states with nonattainment areas classified as Moderate an obligation to develop attainment plans that require RACM/RACT on sources of direct $PM_{2.5}$ and all $PM_{2.5}$ plan precursors. CAA section 189(a)(1)(C) requires that Moderate area $PM_{2.5}$ SIPs contain provisions to assure that RACM/RACT are implemented no later than four years after designation of the area. The EPA reads CAA section 172(c)(1) and 189(a)(1)(C) together to require that attainment plans for Moderate nonattainment areas provide for the implementation of RACM/RACT for existing sources of $PM_{2.5}$ and those $PM_{2.5}$ precursors subject to control in the nonattainment area as expeditiously as practicable but no later than four years after designation.[64]

The $PM_{2.5}$ SIP Requirements Rule defines RACM as ''any technologically and economically feasible measure that can be implemented in whole or in part within 4 years after the effective date of designation of a $PM_{2.5}$ nonattainment area and that achieves permanent and enforceable reductions in direct $PM_{2.5}$ emissions and/or $PM_{2.5}$ plan precursor emissions from sources in the area. RACM includes reasonably available control technology (RACT).''[65] The EPA has historically defined RACT as the lowest emission limitation that a particular stationary source is capable of meeting by the application of control

[59] CAA section 189(b)(1).

[60] 81 FR 58010, 58049.

[61] EPA, Region IX, Air Division, ''Technical Support Document, Proposed Action on the South Coast Moderate Area State Implementation Plan and Proposed Reclassification as Serious Nonattainment for the 2012 $PM_{2.5}$ Standard,'' April 2020.

[62] CMAQ Version 5.0.2.

[63] The District also projected future year annual $PM_{2.5}$ design values for 2023.

[64] This interpretation is consistent with guidance provided in the General Preamble, 13540.

[65] 81 FR 58010, 58035.

technology (*e.g.,* devices, systems, process modifications, or other apparatus or techniques that reduce air pollution) that is reasonably available considering technological and economic feasibility.[66]

Under the $PM_{2.5}$ SIP Requirements Rule, those control measures that otherwise meet the definition of RACM but ''can only be implemented in whole or in part during the period beginning 4 years after the effective date of designation of a nonattainment area and no later than the end of the sixth calendar year following the effective date of designation of the area'' must be adopted and implemented as ''additional reasonable measures.'' [67]

States must provide written justification in a SIP submission for eliminating potential control options from further review on the basis of technological or economic infeasibility.[68] An evaluation of technological feasibility may include consideration of factors such as a source's process and operating conditions, raw materials, physical plant layout, and non-air quality and energy impacts (*e.g.,* increased water pollution, waste disposal, and energy requirements).[69] An evaluation of economic feasibility may include consideration of factors such as cost per ton of pollution reduced (cost-effectiveness), capital costs, and operating and maintenance costs.[70] Absent other indications, the EPA presumes that it is reasonable for similar sources to bear similar costs of emission reductions. Economic feasibility of RACM/RACT is thus largely informed by evidence that other sources in a source category have in fact applied the control technology, process change, or measure in question in similar circumstances.[71]

Consistent with these requirements, SCAQMD must implement RACM, including RACT, for direct $PM_{2.5}$ emission sources no later than April 15, 2019, and must implement additional reasonable measures for these sources no later than December 31, 2021.

The CAA allows for approval of enforceable commitments that are limited in scope where circumstances exist that warrant the use of such commitments in place of adopted measures.[72] Specifically, section 110(a)(2)(A) of the CAA provides that each SIP ''shall include enforceable emission limitations and other control measures, means or techniques . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the Act.'' Section 172(c)(6) of the Act, which applies to nonattainment area SIPs, is virtually identical to section 110(a)(2)(A).[73] Commitments approved by the EPA under CAA section 110(k)(3) are enforceable by the EPA and citizens under CAA sections 113 and 304, respectively. Additionally, if a state fails to meet its commitments, the EPA may make a finding of failure to implement the SIP under CAA section 179(a)(4), which starts an 18-month period for the state to correct the non-implementation before mandatory sanctions are imposed.

Once the EPA determines that circumstances warrant consideration of an enforceable commitment to satisfy a CAA requirement, it considers three factors in determining whether to approve the enforceable commitment: (a) Does the commitment address a limited portion of the CAA requirement; (b) is the state capable of fulfilling its commitment; and (c) is the commitment for a reasonable and appropriate period of time.[74]

2. Control Strategy in the 2016 $PM_{2.5}$ Plan

For purposes of evaluating the 2016 $PM_{2.5}$ Plan, we have divided the measures relied on to satisfy the applicable control requirements into two categories: Baseline measures and control strategy measures.

As the term is used here, baseline measures are federal, State, and District rules and regulations adopted prior to December 2015 for District rules, and prior to November 2015 for CARB rules (*i.e.,* prior to the development of the 2016 $PM_{2.5}$ Plan) that continue to achieve emission reductions through the Moderate area attainment year of 2021 and beyond.[75] The Plan describes many of these measures in Chapter 4, Appendix III, Appendix IV–B, Appendix IV–C, and Appendix VI.[76] Reductions from these baseline measures are incorporated into the baseline inventory and reductions from the District measures in the plan are individually quantified in Appendix III, Table III–2–2B. According to the Plan, baseline measures provide most of the emission reductions projected to occur between the 2012 base year and the 2022 post-attainment milestone year.[77]

Control strategy measures are the new rules, rule revisions, commitments, and other measures that provide the additional increment of emission reductions needed beyond the baseline measures to provide for attainment, to demonstrate RFP, to meet the RACM/RACT requirement, or to provide for contingency measures. Beyond the reductions from the Plan's baseline measures as discussed above, the remaining reductions needed for RFP and attainment [78] are to be achieved through the District's enforceable commitments to achieve emission reductions in the South Coast nonattainment area. The Plan identifies the control measures that are expected to achieve those emission reductions, several of which are identified as ''additional reasonable measures'' because they are to be implemented

[66] General Preamble, 13541, and 57 FR 18070, 18073–18074.

[67] 40 CFR 51.1000, 51.1009(a)(4)(i)(B), and 51.1009(a)(4)(ii)(B).

[68] 40 CFR 51.1009(a)(3).

[69] 40 CFR 51.1009(a)(3); see also 57 FR 18070, 18073–18074.

[70] Id.

[71] 57 FR 18070, 18074.

[72] In the past, the EPA has approved enforceable commitments and courts have enforced these actions against states that failed to comply with those commitments. See, *e.g., American Lung Ass'n of N.J.* v. *Kean,* 670 F. Supp. 1285 (D.N.J. 1987), aff'd, 871 F.2d 319 (3rd Cir. 1989); *NRDC, Inc.* v. *N.Y. State Dept. of Env. Cons.,* 668 F. Supp. 848 (S.D.N.Y. 1987); *Citizens for a Better Env't* v. *Deukmejian,* 731 F. Supp. 1448, recon. granted in par, 746 F. Supp. 976 (N.D. Cal. 1990); *Coalition for Clean Air* v. *South Coast Air Quality Mgt. Dist.,* No. CV 97–6916–HLH, (C.D. Cal. Aug. 27, 1999).

[73] The language in sections 110(a)(2)(A) and 172(c)(6) is quite broad, allowing a SIP to contain any enforceable ''means or techniques'' that the EPA determines are ''necessary or appropriate'' to meet CAA requirements, such that the area will attain as expeditiously as practicable, but no later than the designated date. Furthermore, the express allowance for ''schedules and timetables'' demonstrates that Congress understood that all required controls might not be in place when a SIP is approved.

[74] The Fifth Circuit Court of Appeals upheld the EPA's interpretation of CAA sections 110(a)(2)(A) and 172(c)(6) and the Agency's use and application of the three-factor test in approving enforceable commitments in the 1-hour ozone SIP for Houston-Galveston. *BCCA Appeal Group et al.* v. *EPA et al.,* 355 F.3d 817 (5th Cir. 2003). More recently, the Ninth Circuit Court of Appeals upheld the EPA's approval of enforceable commitments in ozone and $PM_{2.5}$ SIPs for the San Joaquin Valley, based on the same three factor test. *Committee for a Better Arvin, et al.* v. *EPA,* 786 F.3d 1169 (9th Cir. 2015).

[75] These measures are typically rules that have compliance dates occuring after the adoption date of a plan and mobile source measures that achieve reductions as older engines are replaced through attrition (*e.g.,* through fleet turnover).

[76] See also, email dated September 12, 2019 from Kalam Cheung, SCAQMD, to Ashley Graham, EPA Region IX, attaching spreadsheet entitled ''Draft Rule Adoption since 2016 AQMP 20190809.xlsx.''

[77] 2016 $PM_{2.5}$ Plan, Chapter 4 and Appendix V.

[78] The 2016 $PM_{2.5}$ Plan contains a demonstration that attainment of the 2012 $PM_{2.5}$ NAAQS by the December 31, 2021 Moderate area attainment date is impracticable and identifies December 31, 2025 as the most expeditious date by which the South Coast area can attain this standard. 2016 $PM_{2.5}$ Plan, Chapter 5 and Appendix V.

after the RACM deadline (*i.e.,* after the four-year period following designation but before the Moderate area attainment date). Below we discuss the District's RACM/RACT evaluation, additional reasonable measures identified in the plan, and the District's commitments to achieve emission reductions through new control measures to attain the 2012 $PM_{2.5}$ NAAQS by the December 31, 2025 Serious area attainment date.

a. RACM/RACT Analysis in the 2016 $PM_{2.5}$ Plan

The 2016 $PM_{2.5}$ Plan's RACM/RACT evaluation for direct $PM_{2.5}$, NO_X, SO_X, VOC, and ammonia sources is presented in Appendix VI. The District, CARB, and SCAG, the local metropolitan planning organization (MPO), each undertook a process to identify and evaluate potential measures that could contribute to expeditious attainment of the 2012 $PM_{2.5}$ standard in the South Coast nonattainment area. We describe each of these processes below.

i. The District's RACM Analysis

The District's RACM demonstration for the 2012 $PM_{2.5}$ NAAQS focuses on stationary and area source controls and is described in Appendix VI–A of the 2016 $PM_{2.5}$ Plan.

In the years prior to the adoption of the 2016 $PM_{2.5}$ Plan, the District developed and implemented comprehensive plans (*e.g.,* the 2012 Air Quality Management Plan) to provide for attainment of the $PM_{2.5}$ and ozone NAAQS. These plans have resulted in the District's adoption of many new rules and amendments to existing rules for stationary and area sources. In addition, although the District does not have authority to directly regulate emissions from mobile sources, the District has implemented control strategies to indirectly reduce emissions from mobile sources. These regulations and strategies have yielded significant emission reductions from sources under the District's jurisdiction.

In the 2016 $PM_{2.5}$ Plan, the District conducted a multi-step process to identify additional candidate RACM measures that are technologically and economically feasible. As a first step in the RACM analysis, the District developed a detailed emissions inventory of the sources of direct $PM_{2.5}$ and $PM_{2.5}$ precursors. An up-to-date and comprehensive emissions inventory is essential to develop control measures that effectively reduce air pollution. Details on the methodology and development of the emissions inventory are discussed in Chapter 3 and Appendix III of the 2016 $PM_{2.5}$ Plan. A total of 75 major source categories are included in the base year emissions inventory.[79]

Based on these inventories, the District identified several source categories as key emission sources in the South Coast nonattainment area for the 2012 $PM_{2.5}$ NAAQS, including consumer products, livestock wastes, and numerous mobile source categories.[80] For the key stationary source categories under SCAQMD's jurisdiction, the District compared existing control measures with requirements in federal and state regulations and guidance, as well as with analogous rules in other air districts to identify potential control measures. Furthermore, to demonstrate that the SCAQMD considered all additional candidate measures that are available and technologically and economically feasible, the District conducted the following seven-step analysis:

(1) Held an Air Quality Technology Symposium to solicit new ideas for feasible control measures in the South Coast air basin;

(2) conducted a RACT analysis to identify SCAQMD rules that are less stringent than the EPA control technique guidelines (CTGs) or analogous rules in other air districts;

(3) reviewed EPA technical support documents for previously adopted/amended rules submitted for approval into the California SIP;

(4) reviewed control measures adopted during 2012–2015 in other areas (*i.e.,* Ventura County, San Francisco Bay Area, San Joaquin Valley, Sacramento Metropolitan, Dallas Fort-Worth, Houston-Galveston-Brazoria, New York, and New Jersey) to evaluate whether control technologies deemed available and cost-effective in those areas would be feasible for use in the South Coast air basin;

(5) reevaluated control measures that the District had found to be technologically or economically infeasible as part of the RACM analysis for the 2012 AQMP;

(6) reviewed the EPA's Menu of Control Measures (MCM);[81] and

(7) reviewed the EPA's March 2013 ''Strategies for Reducing Wood Smoke'' guidance document to identify regulatory options for reducing residential wood smoke.

Based on its RACM/RACT evaluation for stationary and area sources under its jurisdiction as described above, the District found that its current rules and regulations are generally equivalent to, or more stringent than, those developed by other air districts with respect to emissions of $PM_{2.5}$ and $PM_{2.5}$ precursors.[82] The District identified a list of potential control measures for reducing emissions further,[83] and evaluated these potential additional control measures to determine whether implementation of the measures would be technologically and economically feasible in the South Coast. In addition, the District considered other available control options that can only be implemented after the four-year deadline for RACM/RACT, but before the end of the sixth calendar year following designation, *i.e.,* additional reasonable measures.

The District identified four additional control measures with quantifiable emission reductions to be implemented for the purpose of meeting the 2012 $PM_{2.5}$ NAAQS. The Plan contains a commitment by the District to adopt and implement these or substitute measures as additional reasonable measures in 2020.[84] We discuss the District's commitment in further detail in section V.D.2.b.

The District has also included new commitments in the 2016 $PM_{2.5}$ Plan to achieve specific amounts of emission reductions from NO_X and ammonia sources in the South Coast area. Specifically, the District has committed to adopt and submit measures that will achieve 2.5 tons per day (tpd) of reductions in NO_X emissions and 0.3 tpd of reductions in ammonia emissions by 2020, and 20.5 tpd of reductions in NO_X emissions by 2022, as part of the control strategy for attaining the $PM_{2.5}$ NAAQS by 2025.[85] The District expects

[79] 2016 $PM_{2.5}$ Plan, Table VI–A–3.

[80] Id., Table VI–A–8.

[81] EPA, Menu of Control Measures, *http://www3.epa.gov/ttn/naaqs/pdfs/MenuOfControlMeasures.pdf,* as of December 1, 2015.

[82] 2016 $PM_{2.5}$ Plan, VI–A–36 to VI–A–37.

[83] Id., Table VI–A–11.

[84] SCAQMD, Governing Board Resolution No. 17–2 (March 3, 2017), 9, and 2016 $PM_{2.5}$ Plan, Table 4–7 and Table 4–8 (identifying BCM–04, BCM–10, CMB–02 and CMB–03 as new control measures to be implemented by 2020 for $PM_{2.5}$ purposes).

[85] SCAQMD, Governing Board Resolution No. 17–2 (March 3, 2017), 9; 2016 $PM_{2.5}$ Plan, Table 4–8; and email dated September 12, 2019 from Kalam Cheung, SCAQMD, to Ashley Graham, EPA Region IX, attaching spreadsheet entitled ''Draft Rule Adoption since 2016 AQMP 20190809.xlsx'' (''Control Strategy Updates''). Table 4–8 of the Plan identifies 5.8 tpd of NO_X reductions to be achieved by 2022 but is supplemented by the Control Strategy Updates, which identify 20.5 tpd of NO_X reductions to be achieved by 2022 as part of the District's aggregate tonnage commitment. Control Strategy Updates, ''Summary'' tab (''South Coast AQMD Reasonable Further Progress for 2012 Annual $PM_{2.5}$ Standard''). Table 4–8 of the Plan also identifies 0.3 tpd ammonia reductions and 28 tpd NO_X reductions to be achieved for purposes of attaining the $PM_{2.5}$ NAAQS by 2025 and 3.3 tpd $PM_{2.5}$ reductions to be achieved for contingency measure purposes in 2025.

to meet these emission reduction commitments by adopting new control measures and programs and strengthening existing control measures, such as those identified in Table 4–7 and Table 4–8 of the Plan and in a supplemental update to the control strategy submitted September 12, 2019 (''Control Strategy Updates'').[86] More information about the District's enforceable commitments and the specific control measures anticipated to meet them is included in section V.D.2.c of this proposed rule.

We provide below an evaluation of several State and District measures for key stationary and area source categories. We provide a more detailed evaluation of the District's regulations in our TSD,[87] together with recommendations for future improvements to these rules.

ii. State and District Measures for Stationary and Area Sources

Consumer Products

CARB and the SCAQMD both have well-established programs to regulate VOC emissions from consumer products used by both household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Specifically, CARB has adopted three regulations that establish VOC and reactivity limits for 129 consumer product categories.[88] The first regulation (Article 1) covers the categories of antiperspirants and deodorants. The second regulation (Article 2) covers numerous categories and is simply called the ''General Consumer Products Regulation.'' The third regulation (Article 3) covers categories of aerosol coatings. The EPA approved amendments to these regulations into the California SIP on October 17, 2014.[89]

The SCAQMD also regulates certain categories of consumer products, including architectural coatings, wood products, solvents and degreasers, consumer paint thinners, and inks.[90] As an example, we discuss South Coast's implementation of Rule 1113 (''Architectural Coatings'') below.

Based on our evaluation of the information about these programs in the 2016 $PM_{2.5}$ Plan, we agree with the State's and District's conclusion that these SIP-approved regulations implement RACM for the control of VOCs from consumer products.

Architectural Coatings

SCAQMD Rule 1113 (''Architectural Coatings''), amended February 5, 2016, establishes VOC content limits for paints and other architectural coating products and establishes workplace standards for architectural coating operations. The EPA approved Rule 1113, as amended, into the California SIP on November 29, 2018.[91]

In the 2016 $PM_{2.5}$ Plan, the District compared the requirements of Rule 1113, as amended September 6, 2013,[92] to analogous requirements implemented in other California air districts between 2000 and 2015. The District's evaluation included the requirements of Sacramento Metropolitan Air Quality Management District's Rule 442, as amended September 24, 2015. Based on this evaluation, the District concluded that Rule 1113, as amended September 6, 2013, is generally equivalent to the requirements in other air districts.

The District's February 5, 2016 amendment to Rule 1113 strengthened the rule by eliminating its exemption for small containers. According to a SCAQMD staff report, the small container exemption represented one percent of sales and an estimated twenty percent of total VOC emissions.[93] According to this report, the 2016 rule revision was expected to achieve an estimated VOC reduction of 0.88 tpd by January 1, 2019. The EPA approved this amended rule into the California SIP on November 29, 2018.[94]

Based on our evaluation of the information provided in the 2016 $PM_{2.5}$ Plan and additional information obtained during our review of the Plan, we agree with the SCAQMD's conclusion that Rule 1113 implements RACM for the control of VOCs from architectural coatings.

Confined Animal Facilities and Livestock Waste

SCAQMD Rule 1127 (''Emission Reductions from Livestock Waste''), adopted August 6, 2004, and Rule 223 (''Emission Reduction Permits for Large Confined Animal Facilities''), adopted June 2, 2006, together establish requirements to reduce emissions of ammonia, VOCs, and other pollutants emitted from confined animal facilities and related operations. The EPA approved Rule 1127 and Rule 223 into the California SIP on May 23, 2013 and July 13, 2015, respectively.[95]

Rule 1127 applies to dairy farms with 50 or more cows, heifers, and/or calves and to manure processing operations, such as composting operations and anaerobic digesters. The rule requires operators of dairy farms and manure processing operations to use specified best management practices to reduce pollutant emissions during the removal and disposal of manure from corrals, among other things. Rule 223 applies to large confined animal facilities (LCAFs) and prohibits owners/operators of such facilities from building, altering, replacing, or operating an LCAF without first obtaining a permit from the District. The permit application must include, among other things, an emissions mitigation plan that identifies the mitigation measures to be implemented at the facility. For each source category covered by the rule, owners/operators must implement a prescribed number of mitigation measures among a list of options or as approved by the District, CARB, and the EPA.

The District compared the key requirements of Rule 1127 and Rule 223 to analogous requirements implemented in other parts of California and in Idaho. Based on this evaluation, the District concludes that Rule 1127 and Rule 223 together establish requirements for confined animal facilities and related operations that are generally equivalent to the requirements in these other areas. The District also considered several additional control methods to further reduce ammonia emissions from livestock waste, including application of acidifiers (sodium bisulfate), dietary manipulation, feed additives, manure slurry injection, and microbial/manure additives. The 2016 $PM_{2.5}$ Plan contains a commitment by the District to adopt

[86] Control Strategy Updates, ''Summary'' tab (''South Coast AQMD Reasonable Further Progress for 2012 Annual $PM_{2.5}$ Standard'').

[87] EPA, Region IX, Air Division, ''Technical Support Document, Proposed Action on the South Coast Moderate Area State Implementation Plan and Proposed Reclassification as Serious Nonattainment for the 2012 $PM_{2.5}$ Standard,'' April 2020.

[88] These regulations are codified in the California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 8.5—Consumer Products; Article 2—Consumer Products.

[89] 79 FR 62346.

[90] See, *e.g.,* South Coast Rule 1107 (''Coating of Metal Parts and Products''), approved into the SIP on November 24, 2008 (73 FR 70883); South Coast Rule 1122 (''Solvent Degreasers''), approved into the SIP on February 8, 2006 (71 FR 6350); and South Coast Rule 1130 (''Graphic Arts''), approved into the SIP on July 14, 2015 (80 FR 40915).

[91] 83 FR 61326.

[92] The EPA approved Rule 1113, as amended June 3, 2011, into the SIP on March 26, 2013. 78 FR 18244. Since then, the EPA has approved a more stringent version of Rule 1113, as amended February 5, 2016, into the SIP. 83 FR 61326 (November 29, 2018).

[93] SCAQMD Final Staff Report, ''Proposed Amended Rule 1113—Architectural Coatings,'' February 2016, 22.

[94] 83 FR 61326.

[95] 78 FR 30768 (May 23, 2013) and 80 FR 39966 (July 13, 2015).

an ammonia control measure for livestock waste in 2019.[96] The proposed measure is identified in the Plan as BCM–04.[97]

Based on our evaluation of the information provided in the 2016 $PM_{2.5}$ Plan, we agree with the SCAQMD's conclusion that Rule 1127 and Rule 223 together implement RACM for the control of ammonia and VOCs from confined animal facilities and related operations.

Residential Wood-Burning Devices

SCAQMD Rule 445 (''Wood-Burning Devices''), amended May 3, 2013, establishes requirements for the sale, operation, and installation of wood-burning devices within the South Coast air basin that are designed to reduce PM emissions from such devices. The EPA approved Rule 445, as amended, into the California SIP on September 26, 2013.[98]

Under Rule 445, persons who manufacture, sell, or install wood-burning devices, commercial firewood sellers, and property owners or tenants who operate wood-burning devices are subject to specific requirements concerning the types of wood-burning devices that may be manufactured, sold, or installed, the types of fuels that may be burned in such devices, and labeling requirements. Rule 445 also establishes a mandatory winter wood-burning curtailment whenever the Executive Officer declares that ambient $PM_{2.5}$ levels are forecasted to exceed 30 $\mu g/m^3$ at specified source receptor areas.[99]

The District compared the requirements of Rule 445 to several rules implemented elsewhere in California that are designed to limit PM emissions from residential wood-burning devices. Based on this review, the District concludes that Rule 445 is generally equivalent to these other rules. Rule 445 does not require the removal of old wood stoves upon resale of a home, as do rules implemented in several other areas, but it does contain a prohibition on the installation of any wood-burning device in new residential developments, except in developments where there is no existing infrastructure for natural gas service within 150 feet of the property line or those 3,000 or more feet above mean sea level. Several other air districts prohibit or limit the installation of non-certified wood-burning devices but allow for installation of EPA-certified devices in new developments.

The EPA approved Rule 445 as implementing BACM for the 2006 24-hour $PM_{2.5}$ NAAQS on February 12, 2019.[100] Since that time, at least two other California air districts have revised their wood-burning rules to incorporate more stringent requirements.[101] Given that these rules were amended well after both the date of CARB's submission of the Plan, April 27, 2017, and the statutory deadline for this plan submission, October 15, 2016,[102] we find it reasonable that the SCAQMD did not evaluate these additional control requirements as part of its RACM analysis in the 2016 $PM_{2.5}$ Plan. Full evaluation of the additional control requirements in these revised rules will, however, be required as part of the State/District's BACM demonstration for the 2012 $PM_{2.5}$ NAAQS, which will be due within 18 months after the effective date of a final rule reclassifying the South Coast area as Serious nonattainment for the 2012 $PM_{2.5}$ NAAQS.

Based on our evaluation of the information provided in the 2016 $PM_{2.5}$ Plan, we agree with the SCAQMD's conclusion that Rule 445 implements RACM for the control of $PM_{2.5}$ from residential wood-burning devices.

Paved and Unpaved Roads and Livestock Operations

Rule 1186 (''PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations''), amended July 11, 2008, establishes requirements to reduce the entrainment of PM as a result of vehicular travel on paved and unpaved public roads and livestock operations. The EPA approved Rule 1186, as amended, into the California SIP on March 7, 2012.[103]

Under Rule 1186, owners and operators of paved roads with average daily vehicle trips exceeding certain thresholds must remove visible roadway accumulation within specified periods of time and provide curbing or paved shoulders of certain widths when constructing new or widened roads. Rule 1186 also requires local government agencies that own or maintain paved roads to procure only certified street sweeping equipment for routine street sweeping; establishes requirements for owners and operators of certain unpaved roads to pave, apply chemical stabilization, or install signs to reduce vehicular speeds; and requires owners and operators of livestock operations to cease hay grinding activities during certain times of day, if visible emissions extend more than 50 feet from a hay grinding source.

The District compared the key requirements of Rule 1186 to analogous requirements implemented in other parts of California and in Nevada. Based on this evaluation, the District concludes that Rule 1186 is generally equivalent to the requirements in these other areas. To further reduce $PM_{2.5}$ emissions in areas with high vehicular activity, the District also considered several additional control techniques, such as increasing the frequency of street sweeping with certified equipment and specifying the most effective track out prevention measures. The District concludes that an increase in the required frequency of street sweeping is not economically feasible at this time because most areas in the South Coast air basin already require regular street sweeping and a requirement to conduct more frequent street sweeping would achieve only minimal emission reductions.

Based on our evaluation of the information provided in the 2016 $PM_{2.5}$ Plan, we agree with the SCAQMD's conclusion that Rule 1186 implements RACM for the control of $PM_{2.5}$ from paved and unpaved roads and livestock operations.

Commercial Charbroiling

SCAQMD Rule 1138 (''Control of Emissions from Restaurant Operations''), adopted November 14, 1997, establishes control requirements to reduce PM and VOC emissions from chain-driven charbroilers at commercial cooking operations. The rule does not apply to under-fired charbroilers (UFCs). The EPA approved Rule 1138 into the California SIP on July 11, 2001.[104]

[96] SCAQMD, Governing Board Resolution No. 17–2 (March 3, 2017), 9 and 2016 $PM_{2.5}$ Plan, Table 4–7.

[97] 2016 $PM_{2.5}$ Plan, Table 4–7 and IV–A–202 to IV–A–209 (describing BCM–04).

[98] 78 FR 59249.

[99] The District has committed to adopt and submit revisions to Rule 445 to expand the geographic scope of the mandatory wood-burning curtailment provisions and to lower the curtailment threshold if the EPA makes any of the findings listed in 40 CFR 51.1014(a). Letter dated March 3, 2020, from Michael Benjamin, CARB, to Amy Zimpfer, EPA (enclosing letter dated February 12, 2020, from Wayne Nastri, SCAQMD, to Richard Corey, CARB). For more detail on the District's commitment, see section V.H of this proposed rule (''Contingency Measures'').

[100] 84 FR 3305.

[101] San Joaquin Valley Unified Air Pollution Control District Rule 4901, amended June 20, 2019, and Bay Area Air Quality Management District Rule 6–3, amended November 20, 2019.

[102] Section 189(a)(2) of the CAA requires submission of Moderate area plans within 18 months after nonattainment designations. Because the EPA designated the South Coast as a nonattainment area for the 2012 $PM_{2.5}$ NAAQS effective April 15, 2015 (80 FR 2206), California was required to submit a Moderate area plan for this area by October 15, 2016.

[103] 77 FR 13495.

[104] 66 FR 36170.

Under Rule 1138, chain-driven charbroilers that cook 875 pounds of meat or more per week are required to be equipped and operated with a catalytic oxidizer control device, and the combination charbroiler/catalyst must be tested and certified by the Executive Officer to reduce PM and VOC emissions. The District compared the requirements of Rule 1138 to several rules implemented in other parts of California and in other states that are designed to limit PM and/or VOC emissions from commercial charbroilers. Based on its review of analogous regulations implemented in these other areas, the District concludes that Rule 1138 is generally equivalent to those regulations.

Several times over the past 20 years and most recently in 2009, the District considered amending Rule 1138 to regulate PM emissions from UFCs, but to date the District has not identified control measures for UFCs that are both technologically and economically feasible for implementation in the South Coast. Although the Bay Area Air Quality Management District (BAAQMD) and New York City Department of Environmental Protection (NYDEP) have adopted rules that require controls for UFCs, neither agency has yet confirmed that any regulated sources that are subject to its rules have successfully installed and operated certified UFC control technologies.[105] Staff at the BAAQMD recently noted that electrostatic precipitators have been installed in commercial kitchens in San Francisco and San Jose but that the BAAQMD has not yet enforced control requirements for UFCs because no control technologies have yet been certified.[106] The 2016 $PM_{2.5}$ Plan contains a commitment by the District to adopt a control measure that requires controls on UFCs by 2025.[107] The proposed measure is identified in the Plan as BCM–01.[108]

Based on our evaluation of the information provided in the 2016 $PM_{2.5}$ Plan and additional information obtained during our review of the Plan, we agree with the SCAQMD's conclusion that Rule 1138 implements RACM for the control of $PM_{2.5}$ from commercial charbroilers.

Boilers, Steam Generators, and Process Heaters

SCAQMD Rule 1146 (''Emissions of NO_X from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters''), Rule 1146.1 (''Emissions of NO_X from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters''), and Rule 1146.2 (''Emissions of NO_X from Large Water Heaters and Small Boilers and Process Heaters) establish NO_X emission limits for boilers, steam generators, and process heaters. The EPA approved Rule 1146 and Rule 1146.1, as amended November 1, 2013, into the California SIP on September 25, 2014,[109] and approved Rule 1146.2, as amended May 5, 2006, into the California SIP on December 5, 2008.[110]

Rule 1146 applies to boilers, steam generators, and process heating units with ratings of more than 5 million British thermal units per hour (mmbtu/hr); Rule 1146.1 applies to units with ratings ranging from 2 to 5 mmbtu/hr; and Rule 1146.2 applies to units with ratings less than 2 mmbtu/hr. Each rule sets NO_X emission limits for different fuel types (*e.g.,* digester gas, landfill gas, refinery gas). Rule 1146 and Rule 1146.1 also establish CO emission limits.

The District compared the requirements of the SIP-approved versions of Rule 1146, Rule 1146.1, and Rule 1146.2 to several rules implemented elsewhere in California (*i.e.,* Sacramento, the San Joaquin Valley, and the San Francisco Bay Area) that limit NO_X and/or CO emissions from boilers, steam generators, process heaters and found that the SCAQMD rules are generally as stringent as or more stringent than other California air district rules for this source category. As part of the EPA's rulemakings to approve these rules into the SIP, the EPA concluded that the rules meet CAA requirements for enforceability, RACT, and SIP revisions.[111]

SCAQMD amended Rule 1146, Rule 1146.1, and Rule 1146.2 on December 7, 2018, to initiate the transition of the NO_X RECLAIM program to a command-and-control regulatory structure. Although these amended rules have not yet been approved into the California SIP, the rule amendments are estimated to achieve an additional 0.27 tpd of NO_X emission reductions by January 1, 2023.[112]

Based on our evaluation of the information provided in the 2016 $PM_{2.5}$ Plan and additional information obtained during our review of the Plan, we agree with the SCAQMD's conclusion that Rule 1146, Rule 1146.1, and Rule 1146.2 implement RACM for the control of NO_X from boilers, steam generators, and process heaters.

iii. State Measures for Mobile Sources

CARB's RACM analysis is contained in Attachment VI–A–3 (''California Mobile Source Control Program Best Available Control Measures/Reasonably Available Control Measures Assessment'') (''BACM/RACM assessment'') to Appendix VI–A of the 2016 $PM_{2.5}$ Plan.

CARB's BACM/RACM assessment provides a general description of CARB's existing mobile source programs. 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 since 1985, is contained in Attachment VI–C–1 to Appendix VI–C of the 2016 $PM_{2.5}$ Plan. The BACM/RACM assessment contains CARB's evaluation of mobile source and other statewide control measures that reduce emissions of $PM_{2.5}$ and $PM_{2.5}$ precursors in California, including the South Coast air basin.

Mobile 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 and motor vehicle fuels. Given the need for significant emission reductions from mobile sources to meet the NAAQS in California nonattainment areas, CARB has established stringent control measures for on-road and off-road mobile sources and the fuels that power them.[113] California has unique authority

[105] Email dated July 11, 2019, from Stanley Tong, EPA Region IX, to Krishnan Balakrishnan, BAAQMD, Subject: ''Underfired charbroiler updates'' and email dated June 17, 2019, from Ronald Vaughn, NYDEP, to Stanley Tong, EPA Region IX, Subject: ''RE New Charbroiler Registrations NYC.'' See also 2016 $PM_{2.5}$ Plan, IV–A–186 to IV–A–190.

[106] Email dated January 9, 2020, from Virginia Lau, BAAQMD, to Stanley Tong, EPA Region IX, Subject: ''RE: Underfired charbroiler—Q: SJ discussion about BA rule.''

[107] SCAQMD, Governing Board Resolution No. 17–2 (March 3, 2017), 9 and 2016 $PM_{2.5}$ Plan, Table 4–7.

[108] 2016 $PM_{2.5}$ Plan, Table 4–7 and IV–A–186 to IV–A–192 (describing BCM–01).

[109] 79 FR 57442.

[110] 73 FR 74027.

[111] 79 FR 57442 (September 25, 2014) and 73 FR 74027 (December 5, 2008).

[112] SCAQMD Final Staff Report, ''Proposed Amended Rule 1146—Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; Proposed Amended Rule 1146.1—Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; Proposed Amended Rule 1146.2—Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters; and Proposed Rule 1100—Implementation Schedule for NOx Facilities,'' December 2018, EX–2, available at *http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-dec7-028.pdf?sfvrsn=6.*

[113] California regulations use the term ''off-road'' to refer to ''nonroad'' vehicles and engines.

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. The EPA has approved such mobile source regulations for which waiver authorizations have been issued as revisions to the California SIP.[114]

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 also been submitted and approved as revisions to the California SIP.[115]

iv. Local Jurisdiction Transportation Control Measures

Transportation control measures (TCMs) are, in general, measures designed to reduce emissions from on-road motor vehicles through reductions in vehicle miles traveled (VMT) or traffic congestion. TCMs can reduce $PM_{2.5}$ emissions in both the on-road motor vehicle exhaust and paved road dust source categories by reducing VMT and vehicle trips. They can also reduce vehicle exhaust emissions by relieving congestion. EPA guidance states that where mobile sources contribute significantly to $PM_{2.5}$ violations, ''the state must, at a minimum, address the transportation control measures listed in CAA section 108(f) to determine whether such measures are achievable in the area considering energy, environmental, and economic impacts and other costs.'' [116]

Appendix IV–C, ''Regional Transportation Strategy and Control Measures,'' contains SCAG's RACM analysis for TCMs. Consistent with EPA guidance, SCAG addressed the TCMs listed in CAA section 108(f) following a four-step process: (1) SCAG described the process by which they and the applicable transportation agencies in the South Coast air basin identify, review, and make enforceable commitments to implement TCMs; (2) SCAG assembled and reviewed control measures implemented in other ozone nonattainment areas (both in California and in other states); (3) SCAG compared candidate measures with measures implemented in the South Coast air basin to date, as well as new TCMs in the current Plan; and (4) SCAG provided reasoned justification for any available measures that have yet to be implemented. Based on their review, SCAG determined that the TCMs currently being implemented in the South Coast air basin include all RACM and that none of the identified candidate measures are both technically and economically feasible and would advance the attainment date in the South Coast. Attachment B of Appendix IV–C of the Plan contains a complete listing of all candidate measures evaluated as potential RACM, including a description of each measure, an indication of whether the measure is currently being implemented in the SCAG region, and a reasoned justification for SCAG's rejection of any measures that it has not adopted.

b. Additional Reasonable Measures

As discussed above, the $PM_{2.5}$ SIP Requirements Rule defines control measures that otherwise meet the definition of RACM but can only be implemented during the period beginning four years after the effective date of designation but before the Moderate area attainment date as ''additional reasonable measures.'' [117]

The 2016 $PM_{2.5}$ Plan identifies four cost effective and technologically feasible control measures to be implemented in the year 2020.[118] These measures are BCM–04, BCM–10, CMB–03, and CMB–02. Because each of these measures is to be implemented in 2020, after the April 15, 2019 deadline for implementation of RACM/RACT but before the Moderate area attainment date of December 31, 2021, the District identifies these measures as ''additional reasonable measures'' for purposes of providing progress towards attainment of the 2012 $PM_{2.5}$ NAAQS.[119] Details regarding the cost effectiveness analysis and the schedule for implementation of each of these four measures are provided in Chapter 4, Appendix IV–A, and Appendix IV–B of the 2016 $PM_{2.5}$ Plan.

c. Enforceable Commitments

The 2016 $PM_{2.5}$ Plan includes commitments by the District to adopt and implement certain measures and to achieve specific emission reductions in the South Coast area for purposes of attaining the 2012 $PM_{2.5}$ NAAQS by 2025. Specifically, the SCAQMD has committed to (1) adopt, submit, and implement the control measures listed in Table 4–7 of the Plan by specified dates to achieve the total tonnages of emission reductions identified in Table 4–8 of the Plan, or substitute other measures as necessary to achieve those emission reductions, and (2) achieve the total tonnages of reductions of each pollutant by the dates specified in Table 4–8 of the Plan.[120] If the SCAQMD determines that a particular measure listed in Table 4–7 of the Plan is infeasible, in whole or in part, the SCAQMD's commitment is to substitute other measures that will achieve equivalent emission reductions in the same adoption or implementation timeframes.[121] The 2016 $PM_{2.5}$ Plan relies on these emission reduction commitments (also referred to as ''aggregate tonnage commitments'') as part of the control strategy for meeting the 2022 RFP milestones in the Plan and attaining the 2012 $PM_{2.5}$ NAAQS by the December 31, 2025 Serious area attainment date.[122]

The District expects to meet its emission reduction commitments by adopting new control measures and programs and by strengthening existing control measures, as identified in Table 4–7 and Table 4–8 of the Plan. These new or revised control measures include rules to regulate appliances in commercial and residential applications, livestock wastes, non-refinery flares, greenwaste composting, and restaurant burners and residential cooking.

3. The EPA's Evaluation and Proposed Action

a. RACM/RACT and Additional Reasonable Measures

We have reviewed the District's determination in the 2016 $PM_{2.5}$ Plan that its stationary and area source control measures represent RACM for $PM_{2.5}$ and $PM_{2.5}$ precursors. In our review, we also considered our previous evaluations of the District's rules in

[114] See, *e.g.,* 81 FR 39424 (June 16, 2016), 82 FR 14446 (March 21, 2017), and 83 FR 23232 (May 18, 2018).

[115] 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 I/M program at 75 FR 38023 (July 1, 2010).

[116] Addendum to General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,'' 59 FR 41998 (August 16, 1994) (hereafter ''Addendum''), 42013.

[117] 40 CFR 51.1000, 51.1009(a)(4)(i)(B), and 51.1009(a)(4)(ii)(B).

[118] 2016 $PM_{2.5}$ Plan, Table 4–8.

[119] Id., Table VI–A–13.

[120] SCAQMD Governing Board Resolution No. 17–2 (March 3, 2017), 9. The District clarified its aggregate tonnage commitments for the 2022 RFP milestone year in its Control Strategy Updates, ''Summary'' tab (''South Coast AQMD Reasonable Further Progress for 2012 Annual $PM_{2.5}$ Standard'').

[121] 2016 $PM_{2.5}$ Plan, Chapter 4, 4–53 and 4–54.

[122] Id. at 4–53 to 4–54 and Table 4–8.

connection with our approval of the SCAQMD's RACT SIP demonstration for the 2008 ozone NAAQS.[123] Based on this review, we believe the District's rules provide for the implementation of RACM for stationary and area sources of $PM_{2.5}$ and $PM_{2.5}$ precursors.

With respect to mobile sources, CARB's current program addresses the full range of mobile sources in the South Coast through regulatory programs for both new and in-use vehicles. With respect to transportation controls, we find that SCAG has a well-established TCM development program in which TCMs are continuously identified, reviewed, and evaluated throughout the transportation planning process. Overall, we believe that the programs developed and administered by CARB and SCAG provide for the implementation of RACM for $PM_{2.5}$ and $PM_{2.5}$ precursors in the South Coast nonattainment area.

Finally, the 2016 $PM_{2.5}$ Plan contains enforceable commitments to adopt and implement a number of additional reasonable measures by 2020, for purposes of meeting the 2022 RFP milestones in the Plan and attaining the 2012 $PM_{2.5}$ NAAQS by the December 31, 2025 Serious area attainment date.

For all of these reasons, we propose to find that the 2016 $PM_{2.5}$ Plan provides for the implementation of RACM and additional reasonable measures for all sources of direct $PM_{2.5}$ and $PM_{2.5}$ precursors as expeditiously as practicable, for purposes of the 2012 $PM_{2.5}$ NAAQS in the South Coast area, in accordance with the requirements of CAA section 189(a)(1)(C) and 40 CFR 51.1009.

b. Enforceable Commitments

In addition, we are proposing to approve the District's enforceable commitments to adopt and implement certain measures by specific dates and to achieve specific tonnages of emission reductions from these or appropriate substitute measures, by 2022, as part of the control strategy and RFP demonstration in the 2016 $PM_{2.5}$ Plan. These commitments to adopt and implement control measures and to achieve emission reductions, in the aggregate, by specified dates satisfy the EPA's 3-factor test for approval of such enforceable commitments.

The 2016 $PM_{2.5}$ Plan provides for the majority of the emission reductions necessary for making progress towards attainment to be achieved from baseline measures. These reductions come from a combination of District, State, and federal stationary and mobile source measures.[124] Over the past four decades, the District has adopted or revised almost 100 prohibitory rules that limit emissions of direct PM, NO_X, SO_2, VOC, and ammonia from stationary sources. The vast majority of these rules are currently SIP-approved and as such, their emission reductions are fully creditable in attainment-related SIPs. California has also adopted standards for many categories of on- and off-road vehicles and engines as well as standards for gasoline and diesel fuels. The State's mobile source measures are discussed in Section V.D.2.a.iii of this proposed rule. The remaining reductions needed for attainment are to be achieved through the District's enforceable commitments to achieve emission reductions in the South Coast through the anticipated defined control measures listed in Table 4–7 and Table 4–8 of the Plan.

With respect to the 2016 $PM_{2.5}$ Plan, circumstances warrant the consideration of enforceable commitments as part of the control strategy and RFP demonstration for the South Coast nonattainment area. As discussed below, a majority of the emission reductions that are needed to demonstrate RFP in the South Coast nonattainment area come from rules and regulations that were adopted prior the submittal of the Plan in April 2017 (*i.e.,* baseline measures). As a result of these already-adopted State and District measures, most sources in the South Coast nonattainment area were already subject to stringent rules prior to the development of the Plan, leaving fewer and more technologically challenging opportunities to reduce emissions. In the 2016 $PM_{2.5}$ Plan, the District identified potential control measures that could achieve the additional emission reductions needed to demonstrate RFP toward attainment by the Serious area attainment date. However, the timeline needed to develop, adopt, and implement these measures went beyond the October 15, 2016 statutory deadline for submitting the Plan. The District has made progress in adopting measures to meet its commitments but has not yet completely fulfilled them. Given these circumstances, the 2016 $PM_{2.5}$ Plan's reliance on enforceable commitments is warranted. We now consider the three factors the EPA uses to determine whether the use of enforceable commitments in lieu of adopted measures satisfies CAA planning requirements.

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, such as the amount of emission reductions needed to demonstrate RFP in a nonattainment area. As discussed in greater detail in section V.G, the Plan demonstrates RFP for the 2019 RFP milestone year and 2022 post-attainment milestone year for purposes of the 2012 $PM_{2.5}$ Moderate area plan. For the 2019 milestone year, the plan demonstrates that RFP is achieved by emission reductions from baseline measures alone, whereas the RFP demonstration for the 2022 milestone year relies on emission reductions from new control measures committed to in the 2016 $PM_{2.5}$ Plan.[125] As shown in Table 3, of the emission reductions needed to meet the 2022 RFP milestone for the 2012 $PM_{2.5}$ NAAQS in the South Coast nonattainment area, 7 tpd of NO_X emission reductions need to be achieved by new or revised control strategy measures —that is, State and District baseline measures achieve all but 7 tpd of the NO_X emission reductions necessary to meet the RFP milestone for 2022. This represents approximately 3 percent of the NO_X reductions needed to meet the 2022 RFP milestone. Historically, the EPA has approved SIPs with enforceable commitments in the range of approximately 10 to 13 percent of the total reductions needed for attainment.[126] We find that the District's NO_X commitment addresses a limited proportion of the required emission reductions.

[123] 82 FR 43850 (September 20, 2017).

[124] Federal measures include the EPA's national emission standards for heavy duty diesel trucks (66 FR 5001 (January 18, 2001)), certain new construction and farm equipment (Tier 2 and 3 non-road engines standards (63 FR 56968 (October 23, 1998), and Tier 4 diesel non-road engine standards (69 FR 38958 (June 29, 2004)), and locomotives (63 FR 18978 (April 16, 1998) and 73 FR 37096 (June 30, 2008)). States are allowed to rely on reductions from federal measures in attainment and RFP demonstrations and for other SIP purposes.

[125] 2016 $PM_{2.5}$ Plan, Table VI–C–5A.

[126] See, *e.g.,* our approvals of the SJV PM_{10} plan at 69 FR 30005 (May 26, 2004), the SJV 1-hour ozone plan at 75 FR 10420 (March 8, 2010), the Houston-Galveston 1-hour ozone plan at 66 FR 57160 (November 14, 2001), the SJV $PM_{2.5}$ plan at 76 FR 69896 (November 9, 2011), and the South Coast $PM_{2.5}$ plan at 76 FR 69928 (November 9, 2011).

TABLE 3—REDUCTIONS NEEDED FOR RFP REMAINING AS COMMITMENTS BASED ON SIP-CREDITABLE MEASURES

h	$PM_{2.5}$	NO_X	SO_X	VOC	Ammonia
A. 2012 baseline emissions level	66.4	540	18.4	470	81.1
B. 2022 RFP target level	64.6	283	17.6	367	74.4
C. Total reductions needed from 2012 baseline levels to demonstrate RFP (A–B)	1.8	257	0.8	103	6.7
D. 2022 RFP baseline emissions level	64	290	17	362	73
E. Reductions from baseline measures (A–D)	2.4	250	1.4	108	8.1
F. Reductions needed from new/revised control strategy measures (D–B)	0	7	0	0	0
G. Percent of reductions needed to meet RFP from new control measures (F/C)	0	2.7%	0	0	0

Data Source: 2016 $PM_{2.5}$ Plan, Table 3–4B and Table VI–C–5A.

ii. The State Is Capable of Fulfilling Its Commitment

For the second factor, we consider whether the District is capable of fulfilling its commitments.

The District has made significant progress in meeting its enforceable commitments for the 2022 post-attainment RFP milestone year. It has adopted numerous baseline measures that are projected to achieve additional reductions of NO_X in future years as shown in Table 4. In addition to the measures discussed above, both CARB and the District have well-funded incentive grant programs to reduce emissions from the on- and off-road engine fleets. Reductions from these programs have yet to be quantified and/or credited in the RFP demonstration.

TABLE 4—SCAQMD CONTROL MEASURE UPDATES SINCE THE 2016 AIR QUALITY MANAGEMENT PLAN

Control measure	Rule	Adoption date	Final implementation date(s)	NO_X reduction (tpd)	VOC reduction (tpd)
CMB–02	Rule 1111—"Natural-Gas-Fired, Fan-Type Central Furnaces".	* 3/2/2018	1/1/2046	0.017	
CTS–01 (2012 AQMP)	Rule 1113—"Architectural Coatings"	2/5/2016	1/1/2019		0.88
CMB–03	Rule 1118.1—"Non-Refinery Flares"	1/4/2019	7/1/2024	0.2	
CMB–01, CMB–05	Rule 1134—"Stationary Gas Turbines"	4/5/2019	12/31/2023	2.8	
CMB–01, CMB–05	Rule 1135—"Electricity Generating Facilities"	11/2/2018	1/1/2024	1.8	0.014
CMB–01, CMB–05	Rule 1146, Rule 1146.1, Rule 1146.2—"Non-Refinery Boilers and Heaters".	12/7/2018	1/1/2023	0.27	
CTS–01	Rule 1168—"Adhesive and Sealant Applications"	10/6/2017	2017, 2019, 2023		1.4

Source: Email dated September 12, 2019 from Kalam Cheung, SCAQMD, to Ashley Graham, EPA Region IX, attaching spreadsheet entitled "Draft Rule Adoption since 2016 AQMP 20190809.xlsx."

* SCAQMD further amended Rule 1111 on July 6, 2018 and December 6, 2019.

Given the District's efforts to date and its continuing efforts to reduce emissions, we believe it is capable of meeting its enforceable commitments to achieve the reductions needed to meet its 2022 RFP milestones for the 2012 $PM_{2.5}$ NAAQS.

iii. The Commitment Is for a Reasonable and Appropriate Timeframe

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

In order to meet the commitments to adopt measures and reduce emissions to the levels needed to meet the area's 2022 RFP milestones for the 2012 $PM_{2.5}$ NAAQS in the South Coast nonattainment area, the 2016 $PM_{2.5}$ Plan includes ambitious rule development, adoption, and implementation schedules for a number of defined control measures. The District has committed to achieve 20.5 tpd of NO_X emission reductions by 2022 through adoption and implementation of these defined measures or substitute measures that achieve equivalent emission reductions. We believe that these timeframes are appropriate given the technological and economic challenges associated with the control measures that will be needed to achieve these reductions and the State's and District's required procedures for development and adoption of these measures. In addition, these reductions are not needed to meet the earlier 2019 RFP milestones. Thus, the commitment is for a reasonable and appropriate period of time.

Based on our consideration of these three factors, we are proposing to approve the District's commitments to adopt and implement specific control measures on the schedule identified in Table 4–7 and Table 4–8 of the 2016 $PM_{2.5}$ Plan to the extent that these commitments have not yet been fulfilled, and to achieve specific emission reductions by 2022, as given in these tables and in the Control Strategy Updates.

E. Major Stationary Source Control Requirements Under CAA Section 189(e)

CAA section 189(e) specifically requires that the control requirements applicable to major stationary sources of direct $PM_{2.5}$ also apply to major stationary sources of $PM_{2.5}$ precursors, except where the Administrator determines that such sources do not contribute significantly to $PM_{2.5}$ levels that exceed the standards in the area.[127] The control requirements applicable to major stationary sources of direct $PM_{2.5}$ in a Moderate $PM_{2.5}$ nonattainment area include, at a minimum, the requirements of a NNSR permit program meeting the requirements of CAA sections 172(c)(5) and 189(a)(1)(A). In the $PM_{2.5}$ SIP Requirements Rule, we established a deadline for states to

[127] General Preamble, 13539 and 13541–13542.

submit NNSR plan revisions to implement the $PM_{2.5}$ NAAQS 18 months after an area is initially designated and classified as a Moderate nonattainment area.[128]

California submitted NNSR SIP revisions for the South Coast to address the subpart 4 requirements for Moderate $PM_{2.5}$ nonattainment areas on December 29, 2014.[129] The EPA fully approved these SIP revisions on May 1, 2015.[130] California also submitted NNSR SIP revisions for the South Coast to address the subpart 4 requirements for Serious $PM_{2.5}$ nonattainment areas on May 8, 2017, and the EPA conditionally approved these SIP revisions on November 30, 2018.[131] The basis for the November 30, 2018 conditional approval was a commitment by CARB and the SCAQMD to submit a revised version of Rule 1325 by December 30, 2019. CARB submitted a revised version of Rule 1325 to the EPA on April 24, 2019, fulfilling this commitment.[132] Accordingly, in this action, the EPA is not addressing the NNSR control requirements that apply to major stationary sources of direct $PM_{2.5}$ and $PM_{2.5}$ precursors in the South Coast area under CAA section 189(e).

F. Demonstration That Attainment by the Moderate Area Attainment Date Is Impracticable

1. Requirements for Attainment/Impracticability of Attainment Demonstrations

CAA section 189(a)(1)(B) requires that each Moderate area attainment plan include a demonstration that the plan provides for attainment by the applicable Moderate area attainment date or, alternatively, that attainment by such date is impracticable. This provision explicitly requires that a demonstration of attainment be based on air quality modeling but does not require such modeling for an impracticability demonstration. Although the EPA expects that most impracticability demonstrations will also be supported by air quality modeling, it may be possible in some cases to support an impracticability demonstration with ambient $PM_{2.5}$ data and other relevant non-modeling information.[133]

CAA section 188(c) states, in relevant part, that the Moderate area attainment date ''shall be as expeditiously as practicable but no later than the end of the sixth calendar year after the area's designation as nonattainment . . .'' For the South Coast area, which was initially designated as nonattainment for the 2012 $PM_{2.5}$ standard effective April 15, 2015, the applicable Moderate area attainment date under section 188(c) for this standard is as expeditiously as practicable but no later than December 31, 2021.

In SIP submissions that demonstrate impracticability, the state should document how its required control strategy in the attainment plan represents the application of RACM/RACT and additional reasonable measures, at minimum, to existing sources. The EPA believes it is appropriate to require adoption of all available control measures that are reasonable, *i.e.,* technologically and economically feasible, in areas that do not demonstrate timely attainment, even where those measures cannot be implemented within the 4-year timeframe for implementation of RACM/RACT under CAA section 189(a)(1)(C). The impracticability demonstration will then be based on a showing that the area cannot attain by the applicable attainment date, notwithstanding implementation of the required controls.

2. Impracticability Demonstration in the 2016 $PM_{2.5}$ Plan

The 2016 $PM_{2.5}$ Plan includes a demonstration, based on air quality modeling, that even with the implementation of RACM/RACT and additional reasonable measures for all appropriate sources, attainment by December 31, 2021 is not practicable. The impracticability demonstration is included in Appendix VI–B of the 2016 $PM_{2.5}$ Plan.

Modeled annual average $PM_{2.5}$ concentrations are presented for five monitoring sites representing high $PM_{2.5}$ concentrations in the South Coast air basin. Annual $PM_{2.5}$ concentrations were modeled for the 2012 base year and 2021 attainment year. For 2021, the District examined both baseline and control scenarios. The demonstration is summarized in Table 5.

TABLE 5—IMPRACTICABILITY DEMONSTRATION—ANNUAL AVERAGE $PM_{2.5}$ DESIGN CONCENTRATIONS

[μg/m^3]

Station	2012	2021 Baseline	2021 Controlled
Los Angeles	12.4	10.9	10.6
Anaheim	10.6	9.4	9.1
Rubidoux	13.2	11.2	10.9
Mira Loma	14.9	12.6	12.3
Fontana	12.6	10.6	10.4

Source: 2016 $PM_{2.5}$ Plan, Table VI–B–2.

3. The EPA's Evaluation and Proposed Action

The impracticability demonstration in the 2016 $PM_{2.5}$ Plan is based on air quality modeling that is generally consistent with applicable EPA guidance. We find the modeling adequate to support the impracticability demonstration in the plan. See section V.C of this notice.

We have also evaluated the RACM/RACT and additional reasonable measures demonstration and find that it provides for the expeditious implementation of all RACM/RACT and additional reasonable measures that may feasibly be implemented at this time, consistent with the requirements of CAA sections 172(c)(1) and 189(a)(1)(C) for the 2012 $PM_{2.5}$ NAAQS in the South Coast. See section V.D of this notice.

Finally, we have evaluated the demonstration in the 2016 $PM_{2.5}$ Plan that the implementation of the State/District's SIP control strategy, including

[128] 81 FR 58010, 58115.

[129] Letter dated December 29, 2014, from Richard W. Corey, Executive Officer, CARB, to Jared Blumenfeld, Regional Administrator, EPA Region 9.

[130] 80 FR 24821.

[131] 83 FR 61551.

[132] Letter dated April 24, 2019, from Richard W. Corey, Executive Officer, CARB, to Mike Stoker, Regional Administrator, EPA Region 9.

[133] 81 FR 58010, 58048 and 58049.

RACM/RACT and additional reasonable measures, is insufficient to bring the South Coast into attainment by December 31, 2021. In addition to the information in the 2016 $PM_{2.5}$ Plan, we have reviewed recent $PM_{2.5}$ monitoring data from the South Coast. These data show that annual $PM_{2.5}$ levels in the South Coast, with a current design value (2016–2018) of 14.7 $\mu g/m^3$, continue to be well above the 12.0 $\mu g/m^3$ level of the 2012 $PM_{2.5}$ standard, and the recent trends in annual $PM_{2.5}$ levels in the South Coast are not consistent with a projection of attainment by the end of 2021.[134]

Based on this evaluation, we propose to approve the State's demonstration in the 2016 $PM_{2.5}$ Plan that attainment of the 2012 $PM_{2.5}$ NAAQS in the South Coast by the Moderate area attainment date of December 31, 2021, is impracticable, consistent with the requirements of CAA section 189(a)(1)(B)(ii). On this basis, we also propose to reclassify the South Coast as a Serious nonattainment area, which would trigger requirements for the State to submit a Serious area plan consistent with the requirements of subparts 1 and 4 of part D, title I of the Act (see section VI of this notice).

G. Reasonable Further Progress and Quantitative Milestones

1. Requirements for Reasonable Further Progress and Quantitative Milestones

CAA section 172(c)(2) states that all nonattainment area plans shall require RFP. In addition, CAA section 189(c) requires that all $PM_{2.5}$ nonattainment area SIPs include quantitative milestones to be achieved every three years until the area is redesignated to attainment and which demonstrate RFP. Section 171(1) defines RFP as ''such annual incremental reductions in emissions of the relevant air pollutant as are required by [Part D] or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable [NAAQS] by the applicable date.'' Neither subpart 1 nor subpart 4 of part D, title I of the Act requires that a set percentage of emission reductions be achieved in any given year for purposes of satisfying the RFP requirement.

For purposes of the $PM_{2.5}$ NAAQS, the EPA has interpreted the RFP requirement to require that nonattainment area plans show annual incremental emission reductions sufficient to maintain generally linear progress toward attainment by the applicable deadline.[135] As discussed in EPA guidance in the Addendum to the General Preamble (''Addendum''),[136] requiring linear progress in reductions of direct $PM_{2.5}$ and any individual precursor in a $PM_{2.5}$ plan may be appropriate in situations where:

- The pollutant is emitted by a large number and range of sources,
- the relationship between any individual source or source category and overall air quality is not well known,
- a chemical transformation is involved (*e.g.,* secondary particulate significantly contributes to $PM_{2.5}$ levels over the standard), and/or
- the emission reductions necessary to attain the $PM_{2.5}$ standard are inventory-wide.[137]

The Addendum indicates that requiring linear progress may be less appropriate in other situations, such as:

- Where there are a limited number of sources of direct $PM_{2.5}$ or a precursor,
- where the relationships between individual sources and air quality are relatively well defined, and/or
- where the emission control systems utilized (*e.g.,* at major point sources) will result in a swift and dramatic emission reductions.

In nonattainment areas characterized by any of these latter conditions, RFP may be better represented as step-wise progress as controls are implemented and achieve significant reductions soon thereafter. For example, if an area's nonattainment problem can be attributed to a few major sources, EPA guidance indicates that ''RFP should be met by 'adherence to an ambitious compliance schedule' which is likely to periodically yield significant emission reductions of direct $PM_{2.5}$ or a $PM_{2.5}$ precursor.'' [138]

Attainment plans for $PM_{2.5}$ nonattainment areas should include detailed schedules for compliance with emission regulations in the area and provide corresponding annual emission reductions to be achieved by each milestone in the schedule.[139] In reviewing an attainment plan under subpart 4, the EPA considers whether the annual incremental emission reductions to be achieved are reasonable in light of the statutory objective of timely attainment. Although early implementation of the most cost-effective control measures is often appropriate, states should consider both cost-effectiveness and pollution reduction effectiveness when developing implementation schedules for control measures and may implement measures that are more effective at reducing $PM_{2.5}$ earlier, to provide greater public health benefits.[140]

The $PM_{2.5}$ SIP Requirements Rule establishes specific regulatory requirements for purposes of satisfying the Act's RFP requirements and provides related guidance in the preamble to the rule. Specifically, under the $PM_{2.5}$ SIP Requirements Rule, each $PM_{2.5}$ attainment plan must contain an RFP analysis that includes, at a minimum, the following four components: (1) An implementation schedule for control measures; (2) RFP projected emissions for direct $PM_{2.5}$ and all $PM_{2.5}$ plan precursors for each applicable milestone year, based on the anticipated control measure implementation schedule; (3) a demonstration that the control strategy and implementation schedule will achieve reasonable progress toward attainment between the base year and the attainment year; and (4) a demonstration that by the end of the calendar year for each milestone date for the area, pollutant emissions will be at levels that reflect either generally linear progress or stepwise progress in reducing emissions on an annual basis between the base year and the attainment year.[141] States should estimate the RFP projected emissions for each quantitative milestone year by sector on a pollutant-by-pollutant basis.[142] In an area that cannot practicably attain the $PM_{2.5}$ standard by the applicable Moderate area attainment date, full implementation of a control strategy that satisfies the Moderate area control requirements represents RFP towards attainment.[143]

Section 189(c) requires that attainment plans include quantitative milestones that demonstrate RFP. The purpose of the quantitative milestones is to allow for periodic evaluation of the area's progress towards attainment of the NAAQS consistent with RFP requirements. Because RFP is an annual emission reduction requirement and the quantitative milestones are to be achieved every three years, when a state demonstrates compliance with the quantitative milestone requirement, it will demonstrate that RFP has been achieved during each of the relevant three years. Quantitative milestones

[134] EPA, Design Value Spreadsheets, ''20200306_SouthCoastPM25Annual.xlsx'' and ''pm25_designvalues_20162018_final_12_03_19.xlsx.''

[135] Addendum to the General Preamble, 59 FR 41998, 42015 (August 16, 1994).

[136] Id.

[137] Id.

[138] Id.

[139] Id. at 42016.

[140] Id.

[141] 40 CFR 51.1012(a).

[142] 81 FR 58010, 58056.

[143] Id. at 58056, 58057.

should provide an objective means to evaluate progress toward attainment meaningfully, *e.g.,* through imposition of emission controls in the attainment plan and the requirement to quantify those required emission reductions. The CAA also requires states to submit milestone reports (due 90 days after each milestone), and these reports should include calculations and any assumptions made by the state concerning how RFP has been met, *e.g.,* through quantification of emission reductions to date.[144] The Act requires states to include RFP and quantitative milestones even for areas that cannot practicably attain.

The CAA does not specify the starting point for counting the three-year periods for quantitative milestones under CAA section 189(c). In the General Preamble and Addendum, the EPA interpreted the CAA to require that the starting point for the first three-year period be the due date for the Moderate area plan submission.[145] Consistent with this longstanding interpretation of the Act, the $PM_{2.5}$ SIP Requirements Rule requires that each plan for a Moderate $PM_{2.5}$ nonattainment area contain quantitative milestones to be achieved no later than milestone dates 4.5 years and 7.5 years from the date of designation of the area.[146] Because the EPA designated the South Coast area nonattainment for the 2012 $PM_{2.5}$ NAAQS effective April 15, 2015,[147] the applicable quantitative milestone dates for purposes of this NAAQS in the South Coast are October 15, 2019 and October 15, 2022. Following reclassification of the South Coast area as Serious for the 2012 $PM_{2.5}$ standard, later milestones would be addressed by the Serious area plan.[148]

2. Reasonable Further Progress Demonstration and Quantitative Milestones in the 2016 $PM_{2.5}$ Plan

The RFP plan and quantitative milestones are discussed in section VI–C of Appendix VI of the 2016 $PM_{2.5}$ Plan. The Plan estimates that emissions of direct $PM_{2.5}$, NO_X, SO_X, VOC, and ammonia will generally decline from the 2012 base year and states that emissions of each of these pollutants will remain below the levels needed to show ''generally linear progress'' through 2022, the Moderate area post-attainment milestone year for the 2012 $PM_{2.5}$ NAAQS.[149] The Plan's emissions inventory shows that direct $PM_{2.5}$, NO_X, SO_X, VOC, and ammonia are emitted by a large number and range of sources in the South Coast and that the emission reductions needed for each of these pollutants are inventory-wide.[150] Table VI–C–4 of the 2016 $PM_{2.5}$ Plan contains an implementation schedule for adopted District control measures,[151] Table VI–C–6 contains emission reduction commitments to be achieved each year from 2016 to 2025, and Table VI–C–5 (reproduced, in part,[152] in Table 6) contains RFP projected emissions for each quantitative milestone year. Based on these analyses, the District concludes that its adopted control strategy will achieve, for each pollutant, projected emission levels at or below the RFP and quantitative milestone target emission levels for 2019 and 2022 (see Table 7).[153]

TABLE 6—ANNUAL $PM_{2.5}$ BASELINE EMISSIONS FOR BASE YEAR AND MODERATE AREA PLAN MILESTONE YEARS

[Annual average tpd]

Pollutant	2012 Baseline	2019 (Quantitative milestone)	2022 (Quantitative milestone)
$PM_{2.5}$	66.4	63.9	64.1
NO_X	540	353	275
SO_X	18.4	16.6	17.0
VOC	470	376	348
Ammonia	81.1	74.0	72.6

Source: 2016 $PM_{2.5}$ Plan, Table VI–C–5.

TABLE 7—SUMMARY OF ANNUAL $PM_{2.5}$ RFP CALCULATIONS

Row	Calculation step	$PM_{2.5}$	NO_X	SO_X	VOC	Ammonia
1	2012 base year emissions (tpd)	66.4	540	18.4	470	81.1
2	Annual percent change needed to show linear progress (%).	0.27	4.8	0.43	2.2	0.83
3	2019 target needed to show linear progress (tpd)	65.2	360	17.8	398	76.4
4	2019 baseline emissions (tpd)	63.9	353	16.6	376	74.0
5	Projected shortfall (tpd)	0	0	0	0	0
6	Surplus in 2019 (tpd)	1.3	6.8	1.2	22.2	2.4
7	2022 target needed to show linear progress (%)	64.6	283	17.6	367	74.4
8	2022 emissions (tpd)*	64.1	275	17.0	348	72.6
9	Projected shortfall (tpd)	0	0	0	0	0
10	Surplus in 2022 (tpd)	0.56	8.0	0.59	18.5	1.7

*Based on controlled emissions with emission reductions committed to in the 2016 $PM_{2.5}$ Plan.
Source: 2016 $PM_{2.5}$ Plan, Table VI–C–5A.

The 2016 $PM_{2.5}$ Plan documents the State's conclusion that all RACM/RACT and additional reasonable measures for these pollutants are being implemented as expeditiously as practicable and identifies projected levels of direct

[144] Addendum, 42016–42017.

[145] General Preamble, 13539, and Addendum, 42016.

[146] 40 CFR 51.1013(a)(1).

[147] 80 FR 2206.

[148] Addendum, 42016.

[149] 2016 $PM_{2.5}$ Plan, Table VI–C–5 and Table VI–C–5A.

[150] Id., Chapter 4 and appendices IV–A, VI–B, and VI–C.

[151] See also email dated September 12, 2019 from Kalam Cheung, SCAQMD, to Ashley Graham, EPA Region IX, attaching spreadsheet entitled ''Draft Rule Adoption since 2016 AQMP 20190809.xlsx.''

[152] Table 6 identifies only emission levels for milestone years that must be addressed by the Moderate area plan.

[153] 2016 $PM_{2.5}$ Plan, VI–C–9.

$PM_{2.5}$, NO_X, SO_X, VOC, and ammonia emissions that reflect full implementation of the State, District, and SCAG's RACM/RACT and additional reasonable measure control strategy for these pollutants.[154] The control strategy that provides the basis for these emission projections is described in Chapter 4, Appendix IV, and Appendix VI of the 2016 $PM_{2.5}$ Plan.

Direct $PM_{2.5}$

The District has several stationary and area source rules that are projected to contribute to RFP and attainment of the $PM_{2.5}$ standards.[155] For example, Rule 444 (''Open Burning'') and Rule 445 (''Residential Wood Burning Devices'') were amended in 2013 to achieve $PM_{2.5}$ reductions during winter episodic conditions. The 2013 amendments to Rule 445 lowered the mandatory winter burning curtailment program threshold for residential wood burning and, in certain cases, extended the curtailment to the entire South Coast air basin, thereby further limiting emissions from one of the largest direct $PM_{2.5}$ combustion sources in the South Coast nonattainment area.[156] These rule amendments provide part of the incremental reductions in emissions of direct $PM_{2.5}$ needed from the 2012 base year to meet RFP requirements.[157] Measures to control sources of direct $PM_{2.5}$ are also presented in the Plan's RACM analyses and are reflected in the Plan's baseline emission projections.

The Plan highlights on-road and other mobile source control measures as the primary means for achieving direct $PM_{2.5}$ emission reductions. CARB's implementation of the Truck and Bus Regulation achieved $PM_{2.5}$ emission reductions beginning in 2012.[158] Lighter trucks and buses were required to replace 1995 and older engines with a 2010 model year by 2015. The 2010 model year engines include particulate filters. CARB's LEV II program includes PM emission limits by model year for 2016, and the LEV II program has stricter emission limits for 2017 and beyond. For off-road vehicles, CARB adopted the In-Use Off Road Diesel-Fueled Fleets Regulation (''Off-Road Regulation'') in 2007. The Off-Road Regulation requires owners to replace older vehicles or engines with newer, cleaner models to either (1) retire older vehicles or reduce their use, or (2) to apply retrofit exhaust controls. Off-road fleets are required to meet increasingly strict fleet average indices over time.[159] These indices reflect a fleet's overall emission rates of PM and NO_X for model year and horsepower combinations. Fleets were also banned from adding Tier 0 off-road engines as of January 1, 2014.[160] CARB implemented a similar ban on Tier 1 engines between January 1, 2014 (large fleets) and January 1, 2016 (small fleets).

Nitrogen Oxides

The District regulates numerous NO_X emission sources such as residential space and water heating devices, stationary internal combustion engines, and various sizes of boilers, steam generators, and process heaters used in industrial settings. The 2016 $PM_{2.5}$ Plan identifies the following South Coast regulations as measures that achieve ongoing NO_X reductions with compliance dates during the RFP years of the Plan: Rule 1111 (''Reductions of NO_X from Natural Gas-Fired, Fan-Type Central Furnaces''), Rule 1146.2 (''Emission of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters''), and Rule 1147 (''NO_X Reductions from Miscellaneous Sources'').[161] [162]

In addition to these baseline measures, the District has committed to adopt and implement several new measures to reduce NO_X emissions and ensure RFP toward attainment of the 2012 $PM_{2.5}$ NAAQS in the South Coast air basin. These measures may include CMB–01 (''Transition to Zero and Near-Zero Emission Technologies for Stationary Sources''), CMB–02 (''Emission Reductions from Replacement with Zero or Near-Zero NO_X Appliances in Commercial and Residential Applications''), CMB–03 (''Emission Reductions from Non-Refinery Flares''), CMB–04 (''Emission Reductions from Restaurant Burners and Residential Cooking''), ECC–02 (''Co-Benefits from Existing Residential and Commercial Building Energy Efficiency Measures''), ECC–03 (''Additional Enhancements in Reducing Residential Building Energy Use''), MOB–10 (''Extension of the SOON Provision for Construction/Industrial Equipment''), MOB–11 (''Extended Exchange Program''), and MOB–14 (''Emission Reductions from Incentive Programs'').[163]

For on-road and non-road mobile sources, which represent the largest sources of NO_X emissions in the nonattainment area, the 2016 $PM_{2.5}$ Plan lists numerous CARB regulations and discusses the key regulations that limit emissions of direct $PM_{2.5}$ as well as NO_X, SO_2, VOC, and ammonia from these sources.[164] For example, the regulations that apply to the three largest sources of NO_X in the South Coast—heavy-duty diesel trucks, light- and medium-duty passenger vehicles, and off-road equipment—are discussed in the 2016 $PM_{2.5}$ Plan at Appendix VI–C, Attachment VI–C–1, ''California Existing Mobile Source Control Program,'' and CARB's emission projections for these sources are presented in the Plan's emissions inventory.[165] The Plan also shows that NO_X emission levels in the 2019 and 2022 milestone years are projected to be below the levels needed to show generally linear progress toward attainment in 2025.[166]

The Truck and Bus Regulation and Drayage Truck Regulation became effective in 2011 and have rolling compliance deadlines based on truck engine model year. These and other regulations applicable to heavy-duty diesel trucks will continue to reduce emissions of diesel PM and NO_X through the RFP planning years.[167] For example, model year 1994 and 1995 heavy-duty diesel truck engines were required to be upgraded to meet the 2010 model year truck engine emission standards by 2016, and model year 1996–1999 engines must be upgraded by January 1, 2020.[168]

[154] Id. at VI–C–5 to VI–C–12; see also evaluation of RACM/RACT in section V.D of this proposed rule.

[155] Id., Table III–2–2B and Table 4–8.

[156] Id., Table III–1–2. See also 78 FR 59249 (September 26, 2013).

[157] Id., Table VI–C–4.

[158] The State's quantitative milestone report for the 2017 milestone for the 2006 $PM_{2.5}$ standards indicates that the requirement for heavier trucks to install diesel particulate filters was fully implemented by 2016. See SCAQMD, ''2017 Quantitative Milestone Report for the 2006 24-hour $PM_{2.5}$ National Ambient Air Quality Standard,'' March 2018 (''2017 QM Report''), 11.

[159] A fleet average index is an indicator of a fleet's overall emissions rate of PM and NO_X based on the horsepower and model year of each engine in the fleet.

[160] Tier 0 engines meet 1995 to 1999 emission standards, depending on engine size and horsepower. See *http://www.assocpower.com/eqdata/tech/US-EPA-Tier-Chart_1995-2004.php.*

[161] 2016 $PM_{2.5}$ Plan, Table VI–C–4. See also email dated September 12, 2019 from Kalam Cheung, SCAQMD, to Ashley Graham, EPA Region IX, attaching spreadsheet entitled ''Draft Rule Adoption since 2016 AQMP 20190809.xlsx.''

[162] Rule 1111 was mistakenly listed as Rule 1110 in the 2016 $PM_{2.5}$ Plan, Table VI–C–4. See 2017 QM Report, 6, footnote 1.

[163] 2016 $PM_{2.5}$ Plan, Table VI–C–6.

[164] Id., Appendix VI–C, Attachment VI–C–1.

[165] Id., Appendix III.

[166] Id., Table VI–C–5A.

[167] Id. at VI–C–20.

[168] Title 13, California Code of Regulations, Section 2025 (''Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles''), paragraphs (e), (f), and (g), effective December 14, 2011. See also 77 FR 20308, 20309–20310 (April 4, 2012) (final rule

Continued

CARB's Cleaner In-Use Off-road Equipment regulation was first approved in 2007 to reduce $PM_{2.5}$ and NO_X emissions from in-use off-road heavy-duty diesel vehicles in California such as those used in construction, mining, and industrial operations. The regulation reduces emissions of $PM_{2.5}$ and NO_X by targeting the existing fleet and imposing idling limits, restrictions on use of older vehicles, and requirements to retrofit or replace the oldest engines. For example, Tier 0 engines could not be added to fleets after January 1, 2014, and Tier 1 engines could not be added after January 1, 2016. The regulation was phased in between January 1, 2014 and January 1, 2019.[169]

Volatile Organic Compounds

As with other precursors, the District regulates stationary and area sources of VOCs, and CARB is largely responsible for regulating emissions from both on-road and off-road mobile sources. The 2016 $PM_{2.5}$ Plan highlights one adopted stationary source VOC rule that contributes to RFP: Rule 1114 (''Petroleum Refinery Coking Operations'').[170]

In addition to the baseline measures discussed above, the District intends to adopt and implement several measures to reduce NO_X emissions that may also result in VOC emission reductions and help ensure RFP toward attainment of the 2012 $PM_{2.5}$ NAAQS in the South Coast air basin. These measures include CMB–01 (''Transition to Zero and Near-Zero Emission Technologies for Stationary Sources''), CMB–03 (''Emission Reductions from Non-Refinery Flares''), ECC–02 (''Co-Benefits from Existing Residential and Commercial Building Energy Efficiency Measures''), ECC–03 (''Additional Enhancements in Reducing Residential Building Energy Use'').[171]

As with NO_X, the majority of VOC emission reductions that occur between the 2012 base year and the 2022 RFP year come from on-road mobile sources and other mobile sources that are under the State's jurisdiction.

Ammonia

Control measures for ammonia sources are described in Appendix VI of the 2016 $PM_{2.5}$ Plan. For example, South Coast Rule 223 and Rule 1127, which regulate confined animal facilities and manure waste from these facilities, control ammonia, as do the District's composting measures (*i.e.,* Rule 1133, Rule 1133.1, Rule 1133.2 and Rule 1133.3). These rules and the methods they use to control ammonia emissions are discussed at length in Appendix IV–A of the Plan, and their emission projections are presented collectively under farming operations (for confined animal feeding operations and manure) or waste disposal (for composting categories) in the Plan's emissions inventory.[172] We discuss our evaluation of these rules for purposes of satisfying RACM requirements in section V.D of this proposed rule.

As part of the control strategy for the 2016 $PM_{2.5}$ Plan, the District has committed to adopt and implement new or revised control measures to reduce ammonia emissions in the South Coast air basin. Potential measures include: (1) BCM–04 (''Emission Reductions from Manure Management Strategies''), which would reduce ammonia from fresh manure through acidifier application, dietary manipulation, feed additives, and other manure control strategies, including potentially lowering the threshold for large confined animal facilities under Rule 223; and (2) BCM–10 (''Emission Reductions from Greenwaste Composting''), which would reduce ammonia through emerging organic waste processing technology and potential restrictions on direct land application of uncomposted greenwaste.[173]

The District ascribes the projected reductions in ammonia during the period from 2012 to 2022 to decreases in farming operations in the South Coast air basin, reductions in emissions from mobile sources largely achieved by State regulations for on-road motor vehicles, and the District's commitments to adopt and implement new control measures such as BCM–04 and BCM–10.[174]

Sulfur Dioxide

Reductions of SO_2 in the South Coast nonattainment area during the period from 2012 to 2022 are mainly from mobile source reductions. The majority of the SO_2 reductions come from non-road mobile sources, primarily reductions from state regulation of ocean-going vessels.

Quantitative Milestones

The 2016 $PM_{2.5}$ Plan identifies a milestone year of 2019, which is 4.5 years after the effective date of the EPA's designation and classification of the South Coast as a Moderate nonattainment area for the 2012 $PM_{2.5}$ NAAQS, and a second milestone year of 2022, which is 7.5 years after the effective date of the designation. The Plan also identifies target RFP emission levels for direct $PM_{2.5}$, NO_X, SO_2, VOC, and ammonia for the 2019 milestone year and the 2022 post-attainment milestone year,[175] and emission reduction commitments to be achieved through 2022 in accordance with the control strategy in the Plan.[176]

3. The EPA's Evaluation and Proposed Action

The 2016 $PM_{2.5}$ Plan describes the adopted control measures for direct $PM_{2.5}$, NO_X, SO_2, VOC, and ammonia implemented during each year of the plan and demonstrates that these measures are being implemented as expeditiously as practicable. Additionally, the Plan presents basin-wide emission reduction commitments to attain the 2012 $PM_{2.5}$ NAAQS. The Plan contains projected RFP emission levels for direct $PM_{2.5}$ and all $PM_{2.5}$ precursors for the 2019 and 2022 milestone years based on the anticipated implementation schedule for the control strategy. Finally, the 2016 $PM_{2.5}$ Plan demonstrates that, by the end of the calendar year for each milestone date for the area, emissions of direct $PM_{2.5}$ and all $PM_{2.5}$ precursors will be reduced at rates representing generally linear progress towards attainment.[177] We agree with the State and District's conclusion that generally linear progress is an appropriate measure of RFP for the 2012 $PM_{2.5}$ NAAQS in the South Coast area given that $PM_{2.5}$ and its precursors are emitted by a large number and range of sources in the South Coast, the emission reductions needed for these

approving CARB's Truck and Bus Rule into California SIP).

[169] 2016 $PM_{2.5}$ Plan, Appendix VI–C, Attachment VI–C–1, VI–C–23 and VI–C–24.

[170] Id., Table VI–C–4. See also, email dated September 12, 2019 from Kalam Cheung, SCAQMD, to Ashley Graham, EPA Region IX, attaching spreadsheet entitled ''Draft Rule Adoption since 2016 AQMP 20190809.xlsx.''

[171] Id.

[172] 2016 $PM_{2.5}$ Plan, IV–A–98 to IV–A–103.

[173] SCAQMD, Governing Board Resolution No. 17–2 (March 3, 2017), 9 and 2016 $PM_{2.5}$ Plan, Table 4–7, identifying BCM–04 and BCM–10 as new control measures to be implemented by 2020 for $PM_{2.5}$ purposes.

[174] 2016 $PM_{2.5}$ Plan, Appendix III, Attachment A.

[175] 2016 $PM_{2.5}$ Plan, VI–C–9 and VI–C–10.

[176] Id., Table VI–C–6.

[177] In addition to the Moderate area plan and request for reclassification to Serious, the 2016 $PM_{2.5}$ Plan includes a Serious area attainment demonstration for the 2012 $PM_{2.5}$ NAAQS with a December 31, 2025 attainment date. The RFP demonstration in the 2016 $PM_{2.5}$ Plan represents generally linear progress between the 2012 base year and projected 2025 attainment year in the Serious area plan. Given that the Plan identifies December 31, 2025 as the most expeditious attainment date for the area, we find this date to be an appropriate end point for the RFP demonstration.

pollutants are inventory-wide,[178] and secondary particulates contribute significantly to ambient $PM_{2.5}$ levels in the South Coast area.[179]

Additionally, the 2016 $PM_{2.5}$ Plan identifies quantitative milestone dates that are consistent with the requirements of 40 CFR 51.1013(a)(4) and target emission levels for direct $PM_{2.5}$ and all $PM_{2.5}$ precursors to be achieved by these milestone dates through implementation of the control strategy. These target emission levels and associated control requirements provide for objective evaluation of the area's progress towards attainment of the 2012 $PM_{2.5}$ NAAQS.

For all of these reasons, we propose to approve the RFP demonstration in the 2016 $PM_{2.5}$ Plan as meeting the requirements of CAA section 172(c)(2) and 40 CFR 51.1012(a) and to determine that the quantitative milestones in the Plan satisfy the requirements of CAA section 189(c) and 40 CFR 51.1013.

On January 13, 2020, CARB submitted the ''2019 Quantitative Milestone Report for the 2012 annual $PM_{2.5}$ National Ambient Air Qualtiy Standard (January 2020)'' (''2019 QM Report'') to the EPA.[180] The 2019 QM Report includes a certification from the Governor's designee that the 2019 quantitative milestones for the South Coast $PM_{2.5}$ nonattainment area have been achieved and a demonstration that the adopted control strategy has been fully implemented. The 2019 QM Report also contains a demonstration of how the emission reductions achieved to date compare to those required or scheduled to meet RFP. The State and District conclude in the 2019 QM Report that the emission reductions needed to demonstrate RFP have been achieved and that the 2019 quantitative milestone has been met in the South Coast. On March 30, 2020, the EPA determined that the South Coast 2019 QM Report was adequate.[181] We invite the public to comment on this determination of adequacy.

H. Contingency Measures

1. Requirements for Contingency Measures

Under CAA section 172(c)(9), each SIP for a nonattainment area must include contingency measures to be implemented if an area fails to meet RFP (''RFP contingency measures'') or fails to attain the NAAQS by the applicable attainment date (''attainment contingency measures''). Under the $PM_{2.5}$ SIP Requirements Rule, $PM_{2.5}$ attainment plans must include contingency measures to be implemented following a determination by the EPA that the state has failed: (1) To meet any RFP requirement in the approved SIP; (2) to meet any quantitative milestone in the approved SIP; (3) to submit a required quantitative milestone report; or (4) to attain the applicable $PM_{2.5}$ NAAQS by the applicable attainment date.[182] Section 189(b)(1)(A) of the CAA, however, differentiates between attainment plans that provide for timely attainment and those that demonstrate that attainment is impracticable. Where a SIP includes a demonstration that attainment by the applicable attainment date is impracticable, the state need only submit contingency measures to be implemented if an area fails to meet RFP, to meet a SIP-approved quantitative milestone, or to submit a required quantitative milestone report.[183] Contingency measures must be fully adopted rules or control measures that are ready to be implemented quickly upon failure to meet RFP or failure of the area to meet the relevant NAAQS by the applicable attainment date.[184]

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 emission reductions that implementation of contingency measures must achieve, but the EPA recommends that contingency measures should provide for emission reductions equivalent to approximately one year of reductions needed for RFP, calculated as the overall level of reductions needed to demonstrate attainment divided by the number of years from the base year to the attainment year. In general, we expect all actions needed to effect full implementation of the measures to occur within 60 days after the EPA notifies the state of a failure to meet RFP or to attain.[185]

To satisfy the requirements of 40 CFR 51.1014, the contingency measures adopted as part of a $PM_{2.5}$ attainment plan must consist of control measures for the area that are not otherwise required to meet other nonattainment plan requirements (*e.g.,* to meet RACM/RACT requirements) and must specify the timeframe within which their requirements become effective following any of the EPA determinations specified in 40 CFR 51.1014(a).

In a 2016 decision called *Bahr* v. *EPA* (''*Bahr*''),[186] the Ninth Circuit Court of Appeals rejected the EPA's interpretation of CAA section 172(c)(9) to allow approval of already implemented control measures as contingency measures. In *Bahr,* the Ninth Circuit concluded that contingency measures must be measures that are triggered only after the EPA determines that an area fails to meet RFP requirements or to attain by the applicable attainment date, not before. Thus, within the geographic jurisdiction of the Ninth Circuit, already implemented measures cannot serve as contingency measures under CAA section 172(c)(9).

To comply with section 172(c)(9), as interpreted in the *Bahr* decision, a state must develop, adopt, and submit a contingency measure to be triggered upon a failure to meet an RFP milestone, failure to meet a quantitative milestone requirement, or failure to attain the NAAQS by the applicable attainment date regardless of the extent to which already-implemented measures would achieve surplus emission reductions beyond those necessary to meet RFP or quantitative milestone requirements and beyond those predicted to achieve attainment of the NAAQS.

2. Contingency Measures in the 2016 $PM_{2.5}$ Plan

The 2016 $PM_{2.5}$ Plan addresses the contingency measure requirement in Chapter 4 of the Plan and in section H of the CARB Staff Report. Chapter 4 of the 2016 $PM_{2.5}$ Plan addresses contingency measures for failure to attain the 2006 $PM_{2.5}$ NAAQS by

[178] 2016 $PM_{2.5}$ Plan, Appendix IV–A, Appendix IV–B, and Appendix VI–A.

[179] Id. at V–6–61.

[180] Letter dated January 13, 2020, from Richard W. Corey, Executive Officer, CARB, to Mike Stoker, Regional Administrator, EPA Region IX, with enclosure.

[181] Letter dated March 30, 2020, from Andrew R. Wheeler, Administrator, EPA, to Richard W. Corey, Executive Officer, CARB, regarding 2019 Quantitative Milestone Report for the 2012 annual $PM_{2.5}$ National Ambient Air Quality Standards.

[182] 40 CFR 51.1014(a).

[183] The EPA does not interpret the requirement for failure-to-attain contingency measures to apply to a Moderate $PM_{2.5}$ nonattainment area that a state demonstrates cannot practicably attain the NAAQS by the statutory attainment date. Rather, the EPA believes it is appropriate for the state to identify and adopt attainment contingency measures as part of the Serious area attainment plan. 81 FR 58010, 58067 and Addendum, 42015.

[184] 81 FR 58010, 58066 and Addendum, 42015.

[185] 81 FR 58010, 58066. See also General Preamble, 13512, 13543–13544, and Addendum, 42014–42015.

[186] *Bahr* v. *EPA,* 836 F.3d 1218, 1235–1237 (9th Cir. 2016).

describing emission reductions to be achieved by an adopted measure, South Coast Rule 445 (''Wood-Burning Devices).[187] The 2016 $PM_{2.5}$ Plan does not specifically address contingency measures for failure to meet RFP or quantitative milestone requirements. The CARB Staff Report provides a brief statement acknowledging the *Bahr* decision and committing to work with the EPA and the District to provide additional documentation or develop any needed SIP revisions consistent with that decision.[188]

To supplement the contingency measure element of the 2016 $PM_{2.5}$ Plan, CARB submitted a letter dated January 29, 2019 enclosing the District's commitment to adopt a control measure by a date certain for purposes of satisfying CAA contingency measure requirements for the 2006 and 2012 $PM_{2.5}$ NAAQS.[189] By letter dated February 12, 2020, the District clarified its commitment by committing to develop, adopt, and submit to CARB, for submission to the EPA, a revised rule containing specific contingency provisions that would become effective if the EPA determines: (1) That the area failed to attain the 2006 24-hour $PM_{2.5}$ NAAQS or the 2012 annual $PM_{2.5}$ NAAQS by the applicable attainment date; (2) that the area failed to meet any RFP requirement; (3) that the area failed to meet any quantitative milestone; or (4) that the State failed to submit a required quantitative milestone report for the area.[190] The District submitted this clarified commitment, accompanied by a technical analysis of the emission reductions to be achieved by the contingency measure (''Technical Clarification''), to satisfy the attainment contingency measure requirement for the 2006 $PM_{2.5}$ NAAQS and the RFP contingency measure requirement for the 2012 $PM_{2.5}$ NAAQS in the South Coast nonattainment area.[191]

Specifically, the District has committed to revise an existing rule, Rule 445 (''Wood Burning Devices''), to establish more stringent requirements that would become effective if the EPA makes any of the four determinations (*i.e.,* ''findings of failure'') listed in 40 CFR 51.1014(a). The revisions are to lower the PM wood burning curtailment threshold to 29 $\mu g/m^3$ upon the first EPA finding of failure, and to lower the threshold to 28, 27, and 26 $\mu g/m^3$ upon a second, third, and fourth finding of failure, respectively. Under the revised rule, the mandatory winter burning curtailment would apply to the entire South Coast air basin. The District estimates that lowering the curtailment threshold to 29, 28, 27, and 26 $\mu g/m^3$ upon each finding of failure would achieve reductions in $PM_{2.5}$ emissions of 20.9, 20.9, 13.9, and 19.1 tpy, respectively.[192]

The District has committed to adopt this revised rule and submit it to CARB in time for CARB to submit the revised rule to the EPA by the earlier of the following dates: (1) One year after the date of the EPA's conditional approval of the contingency measures for the 2012 annual $PM_{2.5}$ standard, or (2) 60 days after the date the EPA makes a determination that the South Coast area has failed to attain the 2006 24-hour $PM_{2.5}$ standards but no later than one year after the date of the EPA's conditional approval of the contingency measures for these standards.[193] In its March 3, 2020 letter submitting the District's commitment to the EPA, CARB also committed to submit the revised rule to the EPA by the earlier of these two dates.[194]

3. The EPA's Evaluation and Proposed Action

Section 172(c)(9) requires contingency measures to address potential failure to achieve RFP milestones, failure to meet requirements concerning quantitative milestones, and failure to attain the NAAQS by the applicable attainment date. For purposes of evaluating the contingency measure element of the 2016 $PM_{2.5}$ Plan, we find it useful to distinguish between contingency measures to address potential failure to achieve RFP milestones or to meet quantitative milestone requirements (''RFP contingency measures'') and contingency measures to address potential failure to attain the NAAQS (''attainment contingency measures'').

2006 $PM_{2.5}$ Serious Area Contingency Measure Requirements

The EPA previously approved those portions of the 2016 $PM_{2.5}$ Plan that pertain to the requirements for implementing the 2006 $PM_{2.5}$ NAAQS in the South Coast, except for the contingency measure component of the Plan.[195] As part of that action, the EPA found that, for purposes of the 2006 $PM_{2.5}$ NAAQS, the requirement for RFP contingency measures was moot as applied to the 2017 milestone year because CARB and the District had demonstrated to the EPA's satisfaction that the 2017 quantitative milestones in the plan had been met.[196] The EPA took no action, however, with respect to RFP contingency measures for the 2020 milestone year or attainment contingency measures for the 2006 $PM_{2.5}$ NAAQS. Thus, the EPA is now proposing to act on these outstanding components of the 2016 $PM_{2.5}$ Plan for purposes of the 2006 $PM_{2.5}$ NAAQS.

The applicable quantitative milestone dates for the Serious area plan for the 2006 $PM_{2.5}$ NAAQS are December 31, 2017 and December 31, 2020.[197] We discuss below our evaluation of the 2016 $PM_{2.5}$ Plan and related State and District commitments for compliance with the 2020 RFP and attainment contingency measure requirements for the 2006 $PM_{2.5}$ NAAQS.

2012 $PM_{2.5}$ Moderate Area Contingency Measure Requirements

Because we are proposing to approve the State's demonstration that the South Coast area cannot practicably attain the 2012 $PM_{2.5}$ NAAQS by the applicable Moderate area attainment date of December 31, 2021, and to reclassify the area to Serious on this basis, attainment contingency measures are not required as part of the Moderate area plan for the 2012 $PM_{2.5}$ NAAQS. Upon reclassification of the South Coast area as a Serious area, California will be required to adopt attainment contingency measures as part of the Serious area attainment plan for the 2012 $PM_{2.5}$ NAAQS.

[187] 2016 $PM_{2.5}$ Plan, 4–51 to 4–52.

[188] The SCAQMD and CARB adopted the 2016 $PM_{2.5}$ Plan in March and April 2017, shortly after the Ninth Circuit issued its decision in *Bahr.*

[189] Letter dated February 13, 2019, from Michael Benjamin, Air Quality Planning and Science Division, CARB, to Mike Stoker, Regional Administrator, EPA Region IX (transmitting letter dated January 29, 2019, from Wayne Nastri, Executive Officer, SCAQMD, to Richard Corey, Executive Officer, CARB). In its January 29, 2019 letter, the District committed to modify an existing rule or adopt a new rule to create a contingency measure that would be triggered if the area fails to meet an RFP requirement, to submit a quantitative milestone report, to meet a quantitative milestone, or to attain the 2006 24-hour or 2012 annual $PM_{2.5}$ NAAQS.

[190] Letter dated February 12, 2020, from Wayne Nastri, Executive Officer, SCAQMD, to Richard Corey, Executive Officer, CARB (attaching ''Technical clarification regarding emission reductions associated with contingency measures for the 2006 24-hour $PM_{2.5}$ standard attainment and 2012 annual $PM_{2.5}$ standard Reasonable Further Progress,'' February 2020) (''Technical Clarification'').

[191] Id.

[192] Technical Clarification, 2.

[193] Letter dated February 12, 2020, from Wayne Nastri, Executive Officer, SCAQMD, to Richard Corey, Executive Officer, CARB.

[194] Letter dated March 3, 2020, from Michael T. Benjamin, Chief, Air Quality Planning and Science Division, CARB, to Amy Zimpfer, Associate Director, Air Division, EPA Region IX (transmitting letter dated February 12, 2020, from Wayne Nastri, Executive Officer, SCAQMD, to Richard Corey, Executive Officer, CARB).

[195] 84 FR 3305 (February 12, 2019).

[196] Id. and 83 FR 49872, 49890 (October 3, 2018) (referencing the EPA's September 7, 2018 adequacy determination).

[197] 40 CFR 51.1013(a)(4).

With respect to the RFP contingency measure requirement for the 2012 $PM_{2.5}$ NAAQS, the applicable quantitative milestone dates are October 15, 2019 and October 15, 2022. As explained in section V.G.3 of this proposed rule, on January 13, 2020, CARB submitted a quantitative milestone report demonstrating that the 2019 quantitative milestones in the 2016 $PM_{2.5}$ Plan have been achieved, and the EPA has determined that this milestone report is adequate. Because the State and District have demonstrated that the South Coast area has met its 2019 quantitative milestones, RFP contingency measures for the 2019 milestone year are no longer needed. The sole purpose of RFP contingency measures is to provide continued progress if an area fails to meet its RFP or quantitative milestone requirements. Failure to meet RFP or quantitative milestone requirements for 2019 would have required California to implement RFP contingency measures and, in certain cases, to revise the 2016 $PM_{2.5}$ Plan to assure that the area would achieve the next quantitative milestone (*i.e.,* for 2022).[198] In this case, however, the 2019 QM Report demonstrates that actual emission levels in 2019 were consistent with the approved 2019 RFP milestone year targets for direct $PM_{2.5}$ and all precursor pollutants (NO_X, SO_2, VOC, and ammonia) regulated in the 2016 $PM_{2.5}$ Plan. Accordingly, RFP contingency measures for 2019 no longer have meaning or purpose, and the EPA proposes to find that the requirement for them is now moot as applied to the South Coast. We discuss below our evaluation of the 2016 $PM_{2.5}$ Plan and related State and District commitments for compliance with the 2022 RFP contingency measure requirement for the 2012 $PM_{2.5}$ NAAQS.

The State's Contingency Measure Commitment

The District and CARB have committed to develop, adopt, and submit a revised District rule (Rule 445, ''Wood-Burning Devices'') to meet the attainment contingency measure requirement for the 2006 $PM_{2.5}$ NAAQS and the RFP contingency measure requirement for the 2012 $PM_{2.5}$ NAAQS. The specific revisions the District has committed to make (*i.e.,* increasing the stringency of the existing wood burning curtailment provisions in Rule 445) would satisfy the requirements in CAA section 172(c)(9) because they would be undertaken if the area fails to attain or fails to meet an RFP or quantitative milestone requirement, and would take effect without significant further action by the State or the EPA. The revised rule would also comply with the regulatory requirements in 40 CFR 51.1014 because it would contain contingency provisions that take effect if the EPA makes any of the four determinations listed in 40 CFR 51.1014(a), would consist of control requirements not otherwise included in the control strategy, and would specify the timeframe within which its contingency provisions become effective following any of the determinations listed in 40 CFR 51.1014(a).

We also considered the adequacy of the contingency measure (once adopted and submitted) from the standpoint of the magnitude of emission reductions the measure would provide (if triggered). Neither the CAA nor the EPA's implementing regulations for the $PM_{2.5}$ NAAQS establish a specific amount of emission reductions that implementation of contingency measures must achieve, but we generally expect that contingency measures should provide for emission reductions approximately equivalent to one year's worth of RFP. For the 2006 $PM_{2.5}$ NAAQS in the South Coast, one year's worth of reductions is approximately 0.36 of direct $PM_{2.5}$ reductions, 26.68 tpd of NO_X reductions, 0.26 tpd of SO_X reductions, 13.50 tpd of VOC reductions, and 1.02 tpd of ammonia reductions.[199] For the 2012 $PM_{2.5}$ NAAQS, one year's worth of reductions needed for RFP is approximately 0.18 tpd of direct $PM_{2.5}$ reductions, 25.71 tpd of NO_X reductions, 0.08 tpd of SO_X reductions, 10.33 tpd of VOC reductions, and 0.67 tpd of ammonia reductions.[200]

With respect to attainment contingency measures for the 2006 $PM_{2.5}$ NAAQS, the Technical Clarification contains the District's quantification of the expected emission reductions from the strengthened requirements to be adopted as contingency measures in Rule 445. The District estimates that lowering the curtailment threshold in Rule 445 by 1 $\mu g/m^3$ for each finding of failure (*i.e.,* to 29, 28, 27, and 26 $\mu g/m^3$) would achieve additional reductions in $PM_{2.5}$ emissions of 20.9, 20.9, 13.9, and 19.1 tpy (0.06, 0.06, 0.04, and 0.05 tpd), respectively, in 2020, the year after the attainment year for the 2006 $PM_{2.5}$ NAAQS.[201] Each of these reduction levels alone do not achieve one year's worth of RFP. However, the District's submittal provides the larger SIP planning context in which to judge the adequacy of the to-be-submitted District contingency measure by identifying surplus direct $PM_{2.5}$, NO_X, VOC, and ammonia emission reductions estimated to be achieved in 2020.[202] The surplus reflects already implemented regulations, including vehicle turnover, which refers to the ongoing replacement by individuals, companies, and government agencies of older, more polluting vehicles and engines with newer vehicles and engines designed to meet more stringent CARB mobile source emissions standards. The surplus also reflects additional emission reductions from regulations and programs that were adopted after the development of the 2016 $PM_{2.5}$ Plan. These include CARB's Heavy-Duty Vehicle Inspection Program, Periodic Smoke Inspection Program, and efforts to reduce emissions from Ocean-Going Vessels At-Berth, and the District's Airports Memorandum of Understanding, Metrolink Locomotives, Low Carbon Fuel Standard and Alternative Diesel Fuels Regulation, and Airborne Toxic Control Measure (ATCM) for Portable Engines and the Statewide Portable Equipment Registration Program.[203]

We have reviewed the surplus emissions estimates for 2020, as shown in the Technical Clarification, and find the calculations reasonable. We therefore agree with the District's conclusion that the 2016 $PM_{2.5}$ Plan provides surplus emission reductions beyond those necessary to demonstrate attainment by the December 31, 2019 Serious area attainment date for the 2006 $PM_{2.5}$ NAAQS in the South Coast. While such surplus emission reductions in the year after the 2019 attainment year do not represent contingency measures themselves, we consider them relevant in evaluating the adequacy of the contingency measures that the State has committed to in order to meet the requirements of section 172(c)(9). In light of the ongoing reductions in emissions of direct $PM_{2.5}$, NO_X, VOC, and ammonia achieved by the State and District measures identified in the Technical Clarification, the emission

[198] Under section 189(c)(3) of the CAA, if a state fails to submit a required quantitative milestone report or the EPA determines that the area has not met an applicable milestone, the EPA must require the state, within nine months after such failure or determination, to submit a plan revision that assures that the state will achieve the next milestone (or attain the NAAQS, if there is no next milestone) by the applicable date.

[199] Technical Clarification, Table 1.

[200] 2016 $PM_{2.5}$ Plan, Appendix III, Attachment A.

[201] Technical Clarification, 2–3.

[202] These emission reductions are surplus to those relied upon in the control strategy for attaining the 2006 $PM_{2.5}$ NAAQS in the 2016 $PM_{2.5}$ Plan because they occur after the December 31, 2019 attainment date and/or will be achieved through implementation of measures adopted after the Plan's adoption.

[203] Technical Clarification, 2–4.

reductions from the District contingency measure (revised Rule 445) would be sufficient to meet the attainment contingency measure requirement for the 2006 $PM_{2.5}$ NAAQS, even though the measure would achieve emission reductions lower than the EPA normally recommends for reductions from such a measure.

With respect to RFP contingency measures for the 2022 milestone year in the Moderate area plan for the 2012 $PM_{2.5}$ NAAQS, the District similarly explains in the Technical Clarification that continuing implementation of existing regulations and turn-over of older vehicles and equipment to cleaner vehicles and equipment will result in surplus emission reductions in the 2022 RFP milestone year.[204] In light of these ongoing reductions in emissions of direct $PM_{2.5}$, NO_X, VOC, and ammonia, the District contingency measure (revised Rule 445) would be sufficient to meet the 2022 RFP contingency measure requirement for the 2012 $PM_{2.5}$ NAAQS, even though the measure would not by itself achieve emission reductions equivalent to one year's worth of RFP. For the same reasons, the District contingency measure (revised Rule 445) would be sufficient to meet the 2020 RFP contingency measure requirement for the 2006 $PM_{2.5}$ NAAQS. We note that under the proposed revisions to Rule 445, if the EPA determines that the South Coast area has failed to attain the 2006 $PM_{2.5}$ NAAQS by the December 31, 2019 attainment date and thereby triggers the contingency measure provision to lower the mandatory burning curtailment to 29 $\mu g/m^3$, the State would not be required to submit a new contingency measure because the additional provisions to lower the curtailment threshold to 28, 27, and 26 $\mu g/m^3$ could be triggered upon subsequent failures and therefore would satisfy RFP contingency measure requirements for both the 2006 $PM_{2.5}$ NAAQS and the 2012 $PM_{2.5}$ NAAQS.

Finally, CARB has committed to submit the revised rule to the EPA within one year after a final action conditionally approving the contingency measure element of the 2016 $PM_{2.5}$ Plan, or within 60 days of a determination by the EPA that the South Coast area failed to attain the 2006 $PM_{2.5}$ NAAQS by the applicable attainment date, whichever occurs sooner. Section 110(k)(4) of the Act authorizes the EPA to conditionally approve a plan revision based on a commitment by the state to adopt specific enforceable measures by a date certain, but not later than one year after the date of approval of the plan revision. The outermost deadline in CARB's commitment (one year following conditional approval of the plan revision) is consistent with the submission deadline in CAA section 110(k)(4). If, however, the EPA determines that the South Coast area failed to attain the 2006 $PM_{2.5}$ NAAQS by the applicable attainment date (December 31, 2019), and the date 60 days after this determination is earlier than the 1-year deadline under section 110(k)(4), then CARB would be obligated under its commitment to submit the revised rule to the EPA by the earlier date. These deadlines ensure that, should the EPA determine that the South Coast area failed to timely attain the 2006 $PM_{2.5}$ NAAQS, contingency provisions will take effect within 60 days of the determination, consistent with longstanding EPA guidance.

For these reasons, we propose to conditionally approve the contingency measure element of the 2016 $PM_{2.5}$ Plan for the 2006 $PM_{2.5}$ NAAQS and the 2012 $PM_{2.5}$ NAAQS, as supplemented by commitments from the District and CARB to adopt and submit an additional contingency measure to meet the attainment and RFP contingency measure requirements of CAA section 172(c)(9) for these NAAQS. Our proposed approval is conditional because it relies upon commitments to adopt and submit a specific enforceable contingency measure (*i.e.,* a revised District rule with contingent provisions).

I. Motor Vehicle Emissions Budgets

1. Requirements for Motor Vehicle Emissions Budgets

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 (MPOs) 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 (MVEBs or ''budgets'') contained in all control strategy SIPs. An attainment, maintenance, or RFP SIP should include budgets for the attainment year, each required RFP milestone year, and the last year of the maintenance plan, as appropriate. Budgets are generally established for specific years and specific pollutants or precursors and must reflect all of the motor vehicle control measures contained in the attainment and RFP demonstrations.[205]

Under the $PM_{2.5}$ SIP Requirements Rule, each attainment plan submittal for a Moderate $PM_{2.5}$ nonattainment area must contain quantitative milestones to be achieved no later than 4.5 years and 7.5 years after the date the area was designated nonattainment.[206] The second of these milestone dates, October 15, 2022,[207] falls after the attainment date for the South Coast area, which is December 31, 2021. As the EPA explained in the preamble to the $PM_{2.5}$ SIP Requirements Rule, it is important to include a post-attainment year quantitative milestone to ensure that, if the area fails to attain by the attainment date, the EPA can continue to monitor the area's progress toward attainment while the state develops a new attainment plan.[208] Moderate area plans demonstrating that attainment by the Moderate area attainment date is impracticable must, therefore, include budgets for both of the milestone dates. States that submit impracticability demonstrations for Moderate areas under CAA section 189(a)(1)(B)(ii), however, are not required to submit budgets for the attainment year because the submitted SIP does not demonstrate attainment.[209]

$PM_{2.5}$ plans should identify budgets for direct $PM_{2.5}$, NO_X, and all other $PM_{2.5}$ precursors for which on-road emissions are determined to significantly contribute to $PM_{2.5}$ levels in the area for each RFP milestone year and the attainment year, if the plan demonstrates attainment. All direct $PM_{2.5}$ SIP budgets should include direct $PM_{2.5}$ motor vehicle emissions from

[204] Id. at 4–6.

[205] 40 CFR 93.118(e)(4)(v).

[206] 40 CFR 51.1013(a)(1).

[207] Because the South Coast area was designated nonattainment effective April 15, 2015, the first milestone date is October 15, 2019, and the second milestone date is October 15, 2022. 80 FR 2206.

[208] 81 FR 58010, 58058 and 58063–58064.

[209] Id. at 58055.

tailpipes, brake wear, and tire wear. With respect to $PM_{2.5}$ from re-entrained road dust and emissions of VOC, SO_2, and/or ammonia, the transportation conformity provisions of 40 CFR part 93, subpart A, apply only if the EPA Regional Administrator or the director of the state air agency has made a finding that emissions of these pollutants within the area are a significant contributor to the $PM_{2.5}$ nonattainment problem and has so notified the MPO and Department of Transportation (DOT), or if the applicable implementation plan (or implementation plan submission) includes any of these pollutants in the approved (or adequate) budget as part of the RFP, attainment, or maintenance strategy.[210] Additionally, as the EPA explained in its May 6, 2005 transportation conformity rule amendments for the $PM_{2.5}$ NAAQS, it is not necessary for a SIP to explicitly state that VOC, SO_2, and/or ammonia are insignificant precursors. Instead, states should consider the on-road contribution of all four precursors to the $PM_{2.5}$ problem as they develop their SIPs and establish emissions budgets for those precursors for which on-road emissions need to be addressed in order to attain the $PM_{2.5}$ standard as expeditiously as practicable. Conformity determinations must address all precursors for which the SIP establishes a budget and need not address those precursors for which the state has not established a budget because the emissions of that precursor are insignificant.[211]

By contrast, transportation conformity requirements apply with respect to emissions of NO_X unless both the EPA Regional Administrator and the director of the state air agency have made a finding that transportation-related emissions of NO_X within the nonattainment area are not a significant contributor to the $PM_{2.5}$ nonattainment problem and have so notified the MPO and DOT, or the applicable implementation plan (or implementation plan submission) does not establish an approved (or adequate) budget for such emissions as part of the RFP, attainment, or maintenance strategy.[212]

The criteria for insignificance determinations are provided in 40 CFR 93.109(f). In order for a pollutant or precursor to be considered an insignificant contributor, the control strategy SIP must demonstrate that it would be unreasonable to expect that such an area would experience enough motor vehicle emissions growth in that pollutant/precursor for a NAAQS violation to occur. Insignificance determinations are based on factors such as air quality, SIP motor vehicle control measures, trends and projections of motor vehicle emissions, and the percentage of the total SIP inventory that is comprised of motor vehicle emissions. The EPA's rationale for providing for insignificance determinations is described in the July 1, 2004 revision to the Transportation Conformity Rule.[213]

The EPA's process for determining the adequacy of a budget consists of three basic steps: (1) Notifying the public of a SIP submittal; (2) providing the public the opportunity to comment on the budget during a public comment period; and, (3) making a finding of adequacy or inadequacy. The EPA can notify the public by either posting an announcement that the EPA has received SIP budgets on the EPA's adequacy website (40 CFR 93.118(f)(1)), or through a **Federal Register** notice of proposed rulemaking when the EPA reviews the adequacy of an implementation plan budget simultaneously with its review and action on the SIP itself (40 CFR 93.118(f)(2)).

For budgets to be approvable, they must meet, at a minimum, the EPA's adequacy criteria (40 CFR 93.118(e)(4)). To meet these requirements, the budgets must be consistent with the attainment and RFP requirements and reflect all of the motor vehicle control measures contained in the attainment and RFP demonstrations.[214]

2. Motor Vehicle Emissions Budgets in the 2016 $PM_{2.5}$ Plan

The 2016 $PM_{2.5}$ Plan includes budgets for direct $PM_{2.5}$, NOx, and VOC for 2019 and 2022 (RFP milestone year and post-attainment quantitative milestone year, respectively).[215] The budgets were calculated using EMFAC2014, the latest approved version of the EMFAC model for estimating emissions from on-road vehicles operating in California that was available at the time the plan was prepared, and SCAG's latest modeled VMT and speed distributions from the ''2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)'' adopted in April 2016.[216] The budgets reflect annual average emissions because those emissions are linked with the District's RFP demonstration for the 2012 $PM_{2.5}$ NAAQS.

The direct $PM_{2.5}$ budgets include tailpipe, brake wear, and tire wear emissions as well as paved road dust, unpaved road dust, and road construction dust emissions.[217] The Plan includes budgets for NOx and VOC because they are regulated precursors under the Plan, but the Plan does not include budgets for SO_2 or ammonia. The budgets included in the 2016 $PM_{2.5}$ Plan are shown in Table 8.

TABLE 8—MVEBS FOR THE SOUTH COAST FOR THE 2012 $PM_{2.5}$ STANDARD

[Annual average tpd]

	2019 (RFP year)			2022 (post attainment year)		
	$PM_{2.5}$	NO_X	VOC	$PM_{2.5}$	NO_X	VOC
Baseline emissions: Exhaust, brake and tire wear	10.82	168.13	82.52	10.25	126.26	68.22
Paved road dust	8.15	.....	.....	8.38	.....	.....
Unpaved road dust	0.59	.....	.....	0.59	.....	.....
Road construction	0.25	.....	.....	0.27	.....	.....
Total	19.81	168.13	82.52	19.48	126.26	68.22

[210] 40 CFR 93.102(b)(3), 93.102(b)(2)(v), and 93.122(f); see also Conformity Rule preambles at 69 FR 40004, 40031–40036 (July 1, 2004), 70 FR 24280, 24283–24285 (May 6, 2005) and 70 FR 31354 (June 1, 2005).

[211] 70 FR 24280, 24287 (May 6, 2005).

[212] 40 CFR 93.102(b)(2)(iv).

[213] 69 FR 40004 (July 1, 2004).

[214] 40 CFR 93.118(e)(4)(iii), (iv) and (v). For more information on the transportation conformity requirements and applicable policies on MVEBs, please visit our transportation conformity website at: *http://www.epa.gov/otaq/stateresources/transconf/index.htm.*

[215] 2016 $PM_{2.5}$ Plan, Appendix VI–D and Table VI–D–3.

[216] See footnote 30, supra.

[217] 2016 $PM_{2.5}$ Plan, Table VI–D–3.

TABLE 8—MVEBS FOR THE SOUTH COAST FOR THE 2012 $PM_{2.5}$ STANDARD—Continued

[Annual average tpd]

	2019 (RFP year)			2022 (post attainment year)		
	$PM_{2.5}$	NO_X	VOC	$PM_{2.5}$	NO_X	VOC
Conformity budget	20	169	83	20	127	69

Source: 2016 $PM_{2.5}$ Plan, Table VI–D–3. Budgets are rounded up to the nearest whole number.

In the submittal letter for the 2016 $PM_{2.5}$ Plan, CARB requested that we limit the duration of our approval of the budgets to the period before the effective date of the EPA's adequacy finding for any subsequently submitted budgets.[218]

3. The EPA's Evaluation and Proposed Action

We have evaluated the budgets in the 2016 $PM_{2.5}$ Plan against our adequacy criteria in 40 CFR 93.118(e)(4) as part of our review of the budgets' approvability (see Table 10 in section IV of the EPA's TSD for this proposal) and will complete the adequacy review concurrent with our final action on the 2016 $PM_{2.5}$ Plan. The EPA is not required under its transportation conformity rule to find budgets adequate prior to proposing approval of them.[219]

Based on the information about SO_2 and ammonia emissions in the 2016 $PM_{2.5}$ Plan, we propose to find that it is not necessary to establish MVEBs for transportation-related emissions of SO_2 and ammonia to attain the 2012 $PM_{2.5}$ standard in the South Coast. As discussed in the May 6, 2005 final transportation conformity rule that addresses the requirements for $PM_{2.5}$ precursors,[220] on-road emissions of SO_2 and ammonia typically are a small portion of the total emissions for these precursors. In the May 6, 2005 final rule, the EPA stated that with adopted fuel regulations, projections of on-road emissions of SO_2 would be less than one percent of total SO_2 emissions in 2020. This was based on an analysis of projected on-road SO_2 emissions in 372 counties that potentially could have been designated as nonattainment for the 1997 annual $PM_{2.5}$ NAAQS based on 1999–2001 air quality data.[221] In the South Coast, on-road emissions of SO_2 and ammonia are projected to account for approximately 10 and 18 percent of total SO_2 and ammonia emissions, respectively, in 2020.[222] The projected contribution of total SO_2 emissions to $PM_{2.5}$ concentrations in the South Coast is in the range of 10 to 13 percent, and the projected contribution of total ammonia emissions to $PM_{2.5}$ concentrations in the area is in the range of 6 to 8 percent, in 2021.[223] CARB implements stringent standards for sulfur content in reformulated gasoline and diesel fuel,[224] both of which effectively limit the SO_2 contribution from motor vehicles in the South Coast. Given that transportation-related emissions of SO_2 or ammonia are not significant contributors to the nonattainment problem in this area, it is not necessary for the 2016 $PM_{2.5}$ Plan to include SO_2 or ammonia budgets.

For the reasons discussed in section V.F of this proposed rule, we are proposing to approve the State's demonstration that it is impracticable to attain the 2012 $PM_{2.5}$ standard in the South Coast by the applicable Moderate area attainment date of December 31, 2021 and are proposing to reclassify the area as Serious. Because the 2016 $PM_{2.5}$ Plan does not demonstrate attainment, we do not address in this proposal any budgets for the Moderate area attainment year of 2021.

For the reasons discussed in section V.G of this proposed rule, we are proposing to approve the RFP demonstration in the 2016 $PM_{2.5}$ Plan. The 2019 and 2022 budgets, as shown in Table 8 of this proposed rule, are consistent with applicable requirements for RFP, are clearly identified and precisely quantified, and meet all other applicable statutory and regulatory requirements including the adequacy criteria in 93.118(e)(4) and (5). For these reasons, the EPA proposes to approve the budgets listed in Table 8. We provide a more detailed discussion in section IV of the TSD, which can be found in the docket for today's action.

We have previously approved MVEBs for the 1997 and 2006 annual and 24-hour $PM_{2.5}$ NAAQS.[225] The budgets that the EPA is proposing to approve apply only for purposes of the 2012 $PM_{2.5}$ NAAQS and would not affect the status of the previously-approved budgets for the 1997 or 2006 $PM_{2.5}$ NAAQS and related trading mechanisms, which remain in effect for those $PM_{2.5}$ NAAQS.

In general, only budgets in approved SIPs can be used for transportation conformity purposes. However, section 93.118(e) of the transportation conformity rule allows budgets in a SIP submission to apply for conformity purposes before the SIP submission is approved under certain circumstances. First, there must not be any other approved SIP budgets that have been established for the same year, pollutant, and CAA requirement. Second, the EPA must find that the submitted SIP budgets are adequate for transportation conformity purposes. To be found adequate, the submission must meet the conformity adequacy requirements of 40 CFR 93.118(e)(4) and (5).

The transportation conformity rule allows for replacement of previously approved budgets by submitted MVEBs that the EPA has found adequate, if the EPA has limited the duration of its prior approval to the period before it finds replacement budgets adequate.[226] However, the EPA will consider a state's request to limit the duration of an MVEB approval only if the request includes the following elements:

- An acknowledgement and explanation as to why the budgets under

[218] Letter dated April 27, 2017, from Richard W. Corey, Executive Officer, CARB, to Alexis Strauss, Acting Regional Administrator, EPA Region IX, 3.

[219] Under the Transportation Conformity regulations, the EPA may review the adequacy of submitted MVEBs simultaneously with the EPA's approval or disapproval of the submitted implementation plan. 40 CFR 93.118(f)(2).

[220] 70 FR 24280, 24283–24285.

[221] Id. at 24283.

[222] 2016 $PM_{2.5}$ Plan, Appendix III, Attachment A (identifying 2020 total SO_X emissions estimate of 16.67 tpd in the South Coast, of which 1.75 tpd (approximately 10 percent) is attributed to on-road motor vehicles, and 2020 total ammonia emissions estimate of 73.25 tpd, of which 13.21 tpd (approximately 18 percent) is attributed to on-road motor vehicles).

[223] Id., Table V–6–6 (identifying projected 2021 $PM_{2.5}$ annual design values by component species, including SO_4 and NH_4).

[224] California Code of Regulations, title 13, sections 2262 and 2282, 74 FR 33196, 33199 (July 10, 2009) (noting that CARB's sulfur content standard for diesel fuel is more stringent than the requirements of the federal ultra-low sulfur diesel program at 40 CFR 80.29), and 75 FR 26653 (May 12, 2010) (final rule approving revisions to the California reformulated gasoline and diesel fuel regulations).

[225] 76 FR 69928, 69951 (November 9, 2011) and 84 FR 3305, 3307 (February 12, 2019).

[226] 40 CFR 93.118(e)(1).

consideration have become outdated or deficient;

- A commitment to update the budgets as part of a comprehensive SIP update; and
- A request that the EPA limit the duration of its approval to the period before the EPA finds new budgets to be adequate for transportation conformity purposes.[227]

In the submittal letter for the 2016 $PM_{2.5}$ Plan, CARB requested that we limit the duration of our approval of the budgets to the period before the effective date of the EPA's adequacy finding for any subsequently submitted budgets.[228] In a letter dated March 3, 2020, CARB clarified their request to limit the budgets and included an explanation as to why the budgets under consideration will become outdated. In short, CARB has requested that we limit the duration of the approval of the budgets because the EPA's approval of EMFAC2017 [229] on August 15, 2019 has rendered the budgets outdated. CARB explains that the budgets from the 2016 $PM_{2.5}$ Plan, for which we are proposing approval in today's action, will need to be revised using EMFAC2017 within the transportation conformity grace period established in our approval of EMFAC2017 to provide for a new conformity determination for the South Coast regional transportation plan and program. In addition, CARB states that, without the ability to replace the budgets using the budget adequacy process, the benefits of using the updated data may not be realized for a year or more after the updated SIP (with the EMFAC2017-derived budgets) is submitted, due to the length of the SIP approval process. We find that CARB's explanation for limiting the duration of the approval of the budgets is appropriate and provides us with a reasonable basis on which to limit the duration of the approval of the budgets.

We note that CARB has not committed to update the budgets as part of a comprehensive SIP update, but as a practical matter, CARB must submit a SIP revision that includes updated demonstrations as well as the updated budgets to meet the adequacy criteria in 40 CFR 93.118(e)(4); [230] and thus, we do not need a specific commitment for such a plan at this time. For the reasons provided above, and in light of CARB's explanation for why the budgets will become outdated and should be replaced upon an adequacy finding for updated budgets, we propose to limit the duration of our approval of the budgets in the 2016 $PM_{2.5}$ Plan until new budgets have been found adequate.

VI. Reclassification as Serious Nonattainment and Serious Area SIP Requirements

A. Reclassification as Serious and Applicable Attainment Date

Section 188 of the Act outlines the process for classification of $PM_{2.5}$ nonattainment areas and establishes the applicable attainment dates. Under the plain meaning of the terms of section 188(b)(1) of the Act, the EPA has general authority to reclassify at any time before the applicable attainment date any area that the EPA determines cannot practicably attain the standard by such date. Accordingly, section 188(b)(1) of the Act is a general expression of delegated rulemaking authority. In addition, subparagraphs (A) and (B) of section 188(b)(1) mandate that the EPA reclassify ''appropriate'' PM_{10} nonattainment areas at specified time frames (*i.e.,* by December 31, 1991 for the initial PM_{10} nonattainment areas, and within 18 months after the SIP submittal due date for subsequent nonattainment areas). These subparagraphs do not restrict the EPA's general authority but simply specify that, at a minimum, it must be exercised at certain times.[231]

We have reviewed the air quality modeling and impracticability demonstration in the 2016 $PM_{2.5}$ Plan and, based on our review, agree with the District's conclusion that implementation of the State/District's SIP control strategy, including RACM/RACT and additional reasonable measures, is insufficient to bring the South Coast into attainment by the December 31, 2021 Moderate area attainment deadline. See sections V.C and V.F of this notice. In addition, we have reviewed recent $PM_{2.5}$ monitoring data for the South Coast available in the EPA's Air Quality System (AQS) database. These data show that 24-hour $PM_{2.5}$ levels in the South Coast continue to be above 12 $\mu g/m^3$, the level of the 2012 $PM_{2.5}$ standard, and the recent trends in the South Coast's annual $PM_{2.5}$ levels are not consistent with a projection of attainment by the end of 2021.[232]

In accordance with section 188(b)(1) of the Act, the EPA is proposing to reclassify the South Coast area from Moderate to Serious nonattainment for the 2012 $PM_{2.5}$ standard of 12 $\mu g/m^3$, based on the EPA's determination that the South Coast area cannot practicably attain the standard by the applicable attainment date of December 31, 2021.

Under section 188(c)(2) of the Act, the attainment date for a Serious area ''shall be as expeditiously as practicable but no later than the end of the tenth calendar year beginning after the area's designation as nonattainment . . .'' The EPA designated the South Coast area as nonattainment for the 2012 $PM_{2.5}$ standard effective April 15, 2015.[233] Therefore, upon final reclassification of the South Coast area as a Serious nonattainment area, the latest permissible attainment date under section 188(c)(2) of the Act, for purposes of the 2012 $PM_{2.5}$ standard in this area, will be December 31, 2025.

Under section 188(e) of the Act, a state may apply to the EPA for a single extension of the Serious area attainment date by up to 5 years, which the EPA may grant if the state satisfies certain conditions. Before the EPA may extend the attainment date for a Serious area under section 188(e), the state must: (1) Apply for an extension of the attainment date beyond the statutory attainment date; (2) demonstrate that attainment by the statutory attainment date is impracticable; (3) demonstrate that it has complied with all requirements and commitments pertaining to the area in the implementation plan; (4) demonstrate to the satisfaction of the Administrator that the plan for the area includes the most stringent measures that are included in the implementation plan of any state or are achieved in practice in any state, and can feasibly be implemented in the area; and (5) submit a demonstration of attainment by the most expeditious alternative date practicable.[234]

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[227] See, *e.g.,* 67 FR 69139 (November 15, 2002), limiting our prior approval of MVEBs in certain California SIPs.

[228] See letter dated April 27, 2017, from Richard W. Corey, Executive Officer, CARB, to Alexis Strauss, Acting Regional Administrator, EPA Region IX, 3.

[229] EMFAC2017 updates vehicle mix and emissions data of the previously approved version of the model, EMFAC2014.

[230] Under 40 CFR 93.118(e)(4), the EPA will not find a budget in a submitted SIP to be adequate unless, among other criteria, the budgets, when considered together with all other emission sources, are consistent with applicable requirements for RFP and attainment. 40 CFR 93.118(e)(4)(iv).

[231] For a general discussion of the EPA's interpretation of the reclassification provisions in section 188(b)(1) of the Act, see the General Preamble, 13537–13538.

[232] EPA, Design Value Spreadsheets, ''20200306_SouthCoastPM25Annual.xlsx'' and ''pm25_designvalues_20162018_final_12_03_19.xlsx.''

[233] 80 FR 2206.

[234] For a discussion of the EPA's interpretation of the requirements of section 188(e), see Addendum, 42002; 65 FR 19964 (April 13, 2000) (proposed action on PM_{10} Plan for Maricopa County, Arizona); 67 FR 48718 (July 25, 2002) (final action on PM_{10} Plan for Maricopa County, Arizona); and *Vigil* v. *EPA,* 366 F.3d 1025, amended at 381 F.3d 826 (9th Cir. 2004) (remanding EPA action on PM_{10} Plan for

Continued

B. Clean Air Act Requirements for Serious $PM_{2.5}$ Nonattainment Area Plans

Upon reclassification as a Serious nonattainment area for the 2012 $PM_{2.5}$ NAAQS, California will be required to submit additional SIP revisions to satisfy the statutory requirements that apply to Serious $PM_{2.5}$ nonattainment areas, including the requirements of subpart 4 of part D, title I of the Act.

The Serious area SIP elements that California will be required to submit are as follows:

1. Provisions to assure that the best available control measures (BACM),[235] including best available control technology (BACT) for stationary sources, for the control of direct $PM_{2.5}$ and $PM_{2.5}$ precursors shall be implemented no later than 4 years after the area is reclassified (CAA section 189(b)(1)(B));

2. a demonstration (including air quality modeling) that the plan provides for attainment as expeditiously as practicable but no later than December 31, 2025, or where the state is seeking an extension of the attainment date under section 188(e), a demonstration that attainment by December 31, 2025 is impracticable and that the plan provides for attainment by the most expeditious alternative date practicable and no later than December 31, 2030 (CAA sections 189(b)(1)(A), 188(c)(2), and 188(e));

3. plan provisions that require reasonable further progress (RFP) (CAA 172(c)(2));

4. quantitative milestones that are to be achieved every three years until the area is redesignated attainment and that demonstrate RFP toward attainment by the applicable date (CAA section 189(c));

5. provisions to assure that control requirements applicable to major stationary sources of $PM_{2.5}$ also apply to major stationary sources of $PM_{2.5}$ precursors, except where the state demonstrates to the EPA's satisfaction that such sources do not contribute significantly to $PM_{2.5}$ levels that exceed the standard in the area (CAA section 189(e));

6. a comprehensive, accurate, current inventory of actual emissions from all sources of $PM_{2.5}$ and $PM_{2.5}$ precursors in the area (CAA section 172(c)(3));

7. contingency measures to be implemented if the area fails to meet RFP or to attain by the applicable attainment date (CAA section 172(c)(9)); and

8. a revision to the NNSR program to lower the applicable ''major stationary source'' [236] thresholds from 100 tpy to 70 tpy (CAA section 189(b)(3)) and to satisfy the subpart 4 control requirements for major stationary sources of $PM_{2.5}$ precursors (CAA section 189(e)).

As discussed in section V.E of this proposed rule, California submitted NNSR SIP revisions for the South Coast to address the subpart 4 NNSR requirements for Serious $PM_{2.5}$ nonattainment areas on May 8, 2017, and the EPA conditionally approved these NNSR SIP revisions on November 30, 2018.[237] The State fulfilled the commitment that provided the basis for the EPA's conditional approval of these NNSR SIP revisions by submitting a revised version of Rule 1325 (''Federal $PM_{2.5}$ New Source Review Program'') on April 24, 2019.

Finally, reclassification of the South Coast area as Serious nonattainment for the 2012 $PM_{2.5}$ standard would lower the de minimis threshold under the CAA's General Conformity requirements (40 CFR part 93, subpart B) from 100 tpy to 70 tpy for $PM_{2.5}$ and $PM_{2.5}$ precursors.[238] In this case, however, reclassification would have no impact on the applicable General Conformity de minimis thresholds, because the South Coast area is already subject to the 70 tpy de minimis threshold for $PM_{2.5}$ and all $PM_{2.5}$ precursors as a result of the EPA's previous action reclassifying the area as Serious nonattainment for the 2006 $PM_{2.5}$ NAAQS.[239]

C. Statutory Deadline for Submittal of the Serious Area Plan

For an area reclassified as a Serious nonattainment area before the applicable attainment date under CAA section 188(b)(1), section 189(b)(2) requires the state to submit the required BACM provisions ''no later than 18 months after reclassification of the area as a Serious Area'' and to submit the required attainment demonstration ''no later than 4 years after reclassification of the area to Serious.'' Section 189(b)(2) establishes outer bounds on the SIP submission deadlines as necessary or appropriate to assure consistency among the required submissions and to implement the statutory requirements.

The Act provides the state with up to 18 months after final reclassification of an area to Serious to submit the required BACM provisions. Because an up-to-date emissions inventory serves as the foundation for a state's BACM/BACT determination, the $PM_{2.5}$ SIP Requirements Rule requires the state to submit the emissions inventory required under CAA section 172(c)(3) within 18 months after the effective date of final reclassification.[240] Similarly, because an effective evaluation of BACM/BACT measures requires evaluation of the precursor pollutants that must be controlled to provide for expeditious attainment in the area, if the state chooses to submit an optional precursor insignificance demonstration to support a determination to exclude a $PM_{2.5}$ precursor from the required control measure evaluations for the area, the EPA requires that the state submit any such demonstration by this same date. An 18-month timeframe for submission of these plan elements is consistent with both the timeframe for submission of BACM/BACT provisions under CAA section 189(b)(2) and the timeframe for submission of subpart 1 plan elements under section 172(b) of the Act.[241]

The $PM_{2.5}$ SIP Requirements Rule also establishes a specific deadline for submission of the attainment demonstration and attainment-related plan elements following discretionary reclassification, which is the earlier of (1) four years from the date of reclassification, or (2) the end of the eighth calendar year after designation.[242] In this case, the earlier of these two dates will be the end of the eighth calendar year after designation—*i.e.,* December 31, 2023. The attainment-related plan elements required within the same timeframe as the attainment demonstration are: (1) The RFP demonstration required under section 172(c)(2); (2) the quantitative milestones

Maricopa County, Arizona but generally upholding the EPA's interpretation of CAA section 188(e)).

[235] The EPA defines BACM as, among other things, the maximum degree of emission reduction achievable for a source or source category, which is determined on a case-by-case basis considering energy, environmental, and economic impacts. (Addendum, 42010 and 42014). BACM must be implemented for all categories of sources in a Serious $PM_{2.5}$ nonattainment area unless the State adequately demonstrates that a particular source category does not contribute significantly to nonattainment of the $PM_{2.5}$ standard. (Id. at 42011, 42012).

[236] For any Serious area, the terms ''major source'' and ''major stationary source'' include any stationary source that emits or has the potential to emit at least 70 tpy of PM_{10} (CAA sections 189(b)(3)).

[237] 83 FR 61551 (establishing December 30, 2019 deadline for the State to correct identified rule deficiencies). Previously, the EPA fully approved NNSR SIP revisions from California to address the NNSR requirements for Moderate $PM_{2.5}$ nonattainment areas. 80 FR 24821 (May 1, 2015).

[238] 40 CFR 93.153(b), 81 FR 58010, 58126.

[239] 81 FR 1514.

[240] 81 FR 58010, 58077.

[241] Section 172(b) requires the EPA to establish, concurrent with nonattainment area designations, a schedule extending no later than 3 years from the date of the nonattainment designation for states to submit plans or plan revisions meeting the applicable requirements of sections 110(a)(2) and 172(c) of the CAA.

[242] 81 FR 58010, 58077.

required under section 189(c); (3) any additional control measures necessary to meet the requirements of section 172(c)(6); and (4) the contingency measures required under section 172(c)(9). Although section 189(b)(2) generally provides for up to four years after a discretionary reclassification for the state to submit the required attainment demonstration, given the timing of this reclassification action less than two years before the Moderate area attainment date, it is appropriate in this case for the EPA to establish an earlier SIP submission deadline to assure timely implementation of the statutory requirements.

Finally, the $PM_{2.5}$ SIP Requirements Rule establishes a regulatory requirement that the state submit revised NNSR program requirements no later than 18 months after final reclassification.[243] The Act does not specify a deadline for the state's submission of SIP revisions to meet NNSR program requirements to lower the ''major stationary source'' threshold from 100 tpy to 70 tpy (CAA section 189(b)(3)) and to address the control requirements for major stationary sources of $PM_{2.5}$ precursors (CAA section 189(e))[244] following reclassification of a Moderate $PM_{2.5}$ nonattainment area as Serious nonattainment under subpart 4. Pursuant to the EPA's gap-filling authority in CAA section 301(a) and to effectuate the statutory control requirements in section 189 of the Act, the $PM_{2.5}$ SIP Requirements Rule requires the state to submit these NNSR SIP revisions, as well as any necessary analysis of and additional control requirements for major stationary sources of $PM_{2.5}$ precursors, no later than 18 months after the effective date of final reclassification of the South Coast area as Serious nonattainment for the 2012 $PM_{2.5}$ standard. This due date will ensure that necessary control requirements for major sources are established in advance of the required attainment demonstration. An 18-month timeframe for submission of the NNSR SIP revisions also aligns with the statutory deadline for submission of BACM and BACT provisions and the broader analysis of $PM_{2.5}$ precursors for potential controls on existing sources in the area.

Accordingly, if we finalize our proposal to reclassify the South Coast as a Serious nonattainment area for the 2012 $PM_{2.5}$ NAAQS, California will be required to submit the emissions inventory required under CAA section 172(c)(3), the BACM/BACT provisions required under CAA section 189(b)(1)(B), and any NNSR SIP revisions required to satisfy the requirements of CAA sections 189(b)(3) and 189(e) for the 2012 $PM_{2.5}$ NAAQS no later than 18 months after the effective date of a final reclassification action. Additionally, California will be required to submit the Serious area attainment demonstration and all attainment-related plan elements no later than the end of the eighth calendar year after designation—*i.e.,* by December 31, 2023. We note that the 2016 $PM_{2.5}$ Plan submitted on April 27, 2017, includes a Serious area attainment demonstration, an emissions inventory, attainment-related plan elements, and BACM/BACT provisions, which the EPA intends to evaluate and act on through subsequent rulemakings, as appropriate.

VII. Reclassification of Areas of Indian Country

When the South Coast area was designated nonattainment for the 2012 $PM_{2.5}$ NAAQS, five Indian tribes were located within the boundaries of the nonattainment area. These tribes include the Cahuilla Band of Mission Indians of the Cahuilla Reservation, the Morongo Band of Mission Indians, the Ramona Band of Cahuilla, the San Manuel Band of Mission Indians, and the Soboba Band of Luiseno Indians. At that time, the main body of land belonging to the Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation was expressly excluded from the South Coast 2012 $PM_{2.5}$ nonattainment area. However, since designations, the tribe acquired the Meadowbrook parcel, which is located approximately 30 miles northwest of the northern boundary of the Reservation and is located within the 2012 $PM_{2.5}$ nonattainment area.

We have considered the relevance of our proposal to reclassify the South Coast area as Serious nonattainment for the 2012 $PM_{2.5}$ standard for each tribe located within the South Coast area. We believe that the same facts and circumstances that support the proposal for the non-Indian country lands also support the proposal for reservation areas of Indian country[245] and any other areas of Indian country where the EPA or a tribe has demonstrated that the tribe has jurisdiction located within the South Coast nonattainment area. The EPA is therefore proposing to exercise our authority under CAA section 188(b)(1) to reclassify areas of Indian country geographically located in the South Coast nonattainment area. Section 188(b)(1) broadly authorizes the EPA to reclassify a nonattainment area—including any Indian country located within such an area—that the EPA determines cannot practicably attain the relevant standard by the applicable attainment date.

Directly-emitted $PM_{2.5}$ and its precursor pollutants (NO_X, SO_2, VOC, and ammonia) are emitted throughout a nonattainment area and can be transported throughout that nonattainment area. Therefore, boundaries for nonattainment areas are drawn to encompass both areas with direct sources of the pollutant problem as well as nearby areas in the same airshed. Initial classifications of nonattainment areas are coterminous with, that is, they match exactly, their boundaries. The EPA believes this approach best ensures public health protection from the adverse effects of $PM_{2.5}$ pollution. Therefore, it is generally counterproductive from an air quality and planning perspective to have a disparate classification for a land area located within the boundaries of a nonattainment area, such as the reservation areas of Indian country contained within the South Coast $PM_{2.5}$ nonattainment area. Violations of the 2012 $PM_{2.5}$ standard, which are measured and modeled throughout the nonattainment area, as well as shared meteorological conditions, would dictate the same conclusion. Furthermore, emissions increases in portions of a $PM_{2.5}$ nonattainment area that are left classified as Moderate could counteract the effects of efforts to attain the standard within the overall area because less stringent requirements would apply in those Moderate portions relative to those that would apply in the portions of the area reclassified to Serious.

Uniformity of classification throughout a nonattainment area is thus a guiding principle and premise when an area is being reclassified. In this

[243] Id. at 58078.

[244] Section 189(e) requires that the control requirements applicable to major stationary sources of $PM_{2.5}$ also apply to major stationary sources of $PM_{2.5}$ precursors, except where the state demonstrates to the EPA's satisfaction that such sources do not contribute significantly to $PM_{2.5}$ levels that exceed the standard in the area.

[245] ''Indian country'' as defined at 18 U.S.C. 1151 refers to: ''(a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.''

particular case, we are proposing to determine, based on the State's demonstration and current ambient air quality trends, that the entire South Coast nonattainment area, including all reservations areas of Indian country and any other area located within the South Coast where a tribe has jurisdiction, cannot practicably attain the 2012 $PM_{2.5}$ standard by the applicable Moderate area attainment date of December 31, 2021.

In light of the considerations outlined above that support retention of a uniformly-classified $PM_{2.5}$ nonattainment area, and our proposal to find that it is impracticable for the area to attain by the applicable attainment date, we propose to reclassify the entire South Coast nonattainment area, including reservation areas of Indian country and any other area of Indian country located within it where the EPA or a tribe has demonstrated that the tribe has jurisdiction, as Serious nonattainment for the 2012 $PM_{2.5}$ standard.

Generally, the effect of reclassification is to lower the applicable ''major source'' threshold for purposes of the NNSR program and the Title V operating permit program from 100 tpy to 70 tpy,[246] thus subjecting more new or modified stationary sources to these requirements. Reclassification also lowers the de minimis threshold under the CAA's General Conformity requirements from 100 tpy to 70 tpy.[247] In this case, however, reclassification would not change the ''major source'' thresholds because, as a result of the EPA's January 2016 reclassification of the South Coast area as a ''Serious'' nonattainment area for the 2006 $PM_{2.5}$ NAAQS, the area is already subject to the 70 tpy major source threshold for Serious $PM_{2.5}$ nonattainment areas in CAA section 189(b)(3).[248] Likewise, reclassification would have no impact on the applicable General Conformity de minimis thresholds, because the South Coast area is already subject to the 70 tpy de minimis threshold for $PM_{2.5}$ and all $PM_{2.5}$ precursors as a result of the EPA's previous reclassification of the area as Serious for the 2006 $PM_{2.5}$ NAAQS.[249]

The EPA has contacted tribal officials to invite government-to-government consultation on this rulemaking effort.[250] The EPA specifically solicits additional comment on this proposed rule from tribal officials. We note that although eligible tribes may seek EPA approval of relevant tribal programs under the CAA, none of the affected tribes will be required to submit an implementation plan as a result of this reclassification.

VIII. Summary of Proposed Actions and Request for Public Comment

Under CAA section 110(k)(3), the EPA is proposing to approve the following elements of the 2016 $PM_{2.5}$ Plan submitted by California to address the CAA's Moderate area planning requirements for the 2012 $PM_{2.5}$ NAAQS in the South Coast nonattainment area:

1. The 2012 base year emissions inventories as meeting the requirements of CAA section 172(c)(3);
2. the reasonably available control measures/reasonably available control technology demonstration as meeting the requirements of CAA sections 172(c)(1) and 189(a)(1)(C);
3. the demonstration that attainment by the Moderate area attainment date of December 31, 2021 is impracticable as meeting the requirements of CAA section 189(a)(1)(B)(ii);
4. the reasonable further progress demonstration as meeting the requirements of CAA section 172(c)(2);
5. the quantitative milestones as meeting the requirements of CAA section 189(c);
6. the motor vehicle emissions budgets for 2019 and 2022 as shown in Table 8 of this proposed rule because they are derived from an approvable RFP demonstration and meet the requirements of CAA section 176(c) and 40 CFR part 93, subpart A; and
7. the SCAQMD's commitments to adopt and implement specific rules and measures in accordance with the schedule provided in Chapter 4 of the 2016 $PM_{2.5}$ Plan to achieve the emission reductions shown therein, and to submit these rules and measures to CARB for transmittal to the EPA as a revision to the SIP, as stated on page 9 of SCAQMD Governing Board Resolution 17–2.

The EPA is also proposing to conditionally approve the contingency measure element of the 2016 $PM_{2.5}$ Plan as meeting the requirements of CAA section 172(c)(9) for the 2006 $PM_{2.5}$ NAAQS and the 2012 $PM_{2.5}$ NAAQS.

Finally, pursuant to CAA section 188(b)(1), the EPA is proposing to reclassify the South Coast $PM_{2.5}$ nonattainment area, including reservation areas of Indian country and any other area where the EPA or a tribe has demonstrated that a tribe has jurisdiction within the South Coast area, as Serious nonattainment for the 2012 $PM_{2.5}$ standard based on the agency's determination that the South Coast area cannot practicably attain the standard by the Moderate area attainment date of December 31, 2021. Upon final reclassification as a Serious area, California will be required to submit, within 18 months after the effective date of the reclassification, provisions to assure that BACM shall be implemented no later than 4 years after the date of reclassification. California will also be required to submit, by December 31, 2023, a Serious area plan that satisfies the requirements of part D of title I of the Act. This plan must include a demonstration that the South Coast area will attain the 2012 $PM_{2.5}$ standard as expeditiously as practicable but no later than December 31, 2025, or by the most expeditious alternative date practicable and no later than December 31, 2030, in accordance with the requirements of CAA sections 189(b) and 188(e).

We note that the 2016 $PM_{2.5}$ Plan submitted on April 27, 2017, includes a Serious area attainment demonstration, an emissions inventory, attainment-related plan elements, and BACM/BACT provisions, which the EPA intends to evaluate and act on through subsequent rulemakings, as appropriate.

In addition, because the EPA is proposing to similarly reclassify reservation areas of Indian country and any other area of Indian country where the EPA or a tribe has demonstrated that the tribe has jurisdiction within the South Coast $PM_{2.5}$ nonattainment area as Serious nonattainment for the 2012 $PM_{2.5}$ standard, consistent with our proposed reclassification of the surrounding non-Indian country lands, the EPA has invited consultation with interested tribes concerning this issue. Although eligible tribes may seek the EPA's approval of relevant tribal programs under the CAA, none of the affected tribes will be required to submit an implementation plan as a result of this reclassification.

We will accept comments from the public on these proposals for the next 30 days. The deadline and instructions for submission of comments are provided in the **DATES** and **ADDRESSES** sections at the beginning of this preamble.

IX. 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

[246] CAA sections 189(b)(3) and 501(2)(B).

[247] 40 CFR part 93, subpart B.

[248] 81 FR 1514.

[249] Id. and 40 CFR 93.153(b).

[250] We sent letters dated January 22, 2020 to tribal officials offering government-to-government consultation.

Act. Accordingly, this proposed action merely proposes to approve, or conditionally approve, state plans 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) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (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);
- 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; and
- Does not provide the EPA with the discretionary authority to address disproportionate human health or environmental effects with practical, appropriate, and legally permissible methods under Executive Order 12898 (59 FR 7629, February 16, 1994).

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 rule 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).

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Ammonia, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Volatile organic compounds.

40 CFR Part 81

Environmental protection, Air pollution control, Particulate matter.

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

Dated: June 5, 2020.

John Busterud,

Regional Administrator, Region IX.

[FR Doc. 2020–12690 Filed 7–1–20; 8:45 am]

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