(2) With the exception of demolition crews, entry into or remaining in this safety zone is prohibited.

(3) All vessels within this safety zone when this section becomes effective must depart the zone immediately.

(4) The Captain of the Port, North Carolina can be reached through the Coast Guard Sector North Carolina Command Duty Officer, Wilmington, North Carolina at telephone number 910–343–3882.

(5) The Coast Guard and designated security vessels enforcing the safety zone can be contacted on VHF–FM marine band radio channel 13 (165.65 MHz) and channel 16 (156.8 MHz).

(d) *Enforcement.* The U.S. Coast Guard may be assisted in the patrol and enforcement of the safety zone by Federal, State, and local agencies.

(e) *Enforcement Period.* This regulation will be enforced from February 1, 2019 through February 29, 2020

(f) *Public Notification.* The Coast Guard will notify the public of the active enforcement times at least 48 hours in advance by transmitting Broadcast Notice to Mariners via VHF–FM marine channel 16.

Dated: December 7, 2018.

Bion B. Stewart,

Captain, U.S. Coast Guard Captain of the Port North Carolina.

[FR Doc. 2018–27385 Filed 12–17–18; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2017–0728; FRL–9988–01–Region 9]

Approval and Promulgation of Air Quality State Implementation Plans; California; Plumas County; Moderate Area Plan 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 most elements of the state implementation plan (SIP) revisions submitted by California to address Clean Air Act (CAA or ''Act'') requirements for the 2012 annual fine particulate matter ($PM_{2.5}$) national ambient air quality standards (NAAQS or ''standards'') in the Plumas County Moderate $PM_{2.5}$ nonattainment area (''Portola nonattainment area''). The SIP revisions are the ''Portola Fine Particulate Matter ($PM_{2.5}$) Attainment Plan'' submitted on February 28, 2017, and the 2019 and 2022 transportation conformity motor vehicle emission budgets (''budgets'') submitted on December 20, 2017. We refer to these submittals collectively as the ''Portola $PM_{2.5}$ Plan'' or ''Plan.'' The EPA is proposing to approve the following elements of the Portola $PM_{2.5}$ Plan: The 2013 base year emissions inventories, the reasonably available control measure/reasonably available control technology (RACM/RACT) demonstration, the attainment demonstration, the reasonable further progress (RFP) demonstration, the quantitative milestones, and the budgets for 2019 and 2021. The EPA is not proposing any action at this time on the contingency measures in the Portola $PM_{2.5}$ Plan.

DATES: Any comments must arrive by January 17, 2019.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R09–OAR–2017–0728 at *https://www.regulations.gov,* or via email to John Ungvarsky, at *Ungvarsky.john@epa.gov.* For comments submitted at *Regulations.gov*, follow the online instructions for submitting comments. Once submitted, comments cannot be removed or edited 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 (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www2.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: John Ungvarsky, EPA Region IX, (415) 972–3963, *ungvarsky.john@epa.gov.*

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

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I. Background for Proposed Action

Under section 109 of the CAA, the EPA has established NAAQS for certain pervasive air pollutants (referred to as ''criteria pollutants'') and conducts periodic reviews of the NAAQS to determine whether they should be revised or whether new NAAQS should be established. The EPA sets the NAAQS for criteria pollutants at levels required to protect public health and welfare.[1] Particulate matter is one of the criteria pollutants for which the EPA has established health-based standards. The CAA requires states to submit regulations that control particulate matter emissions.

Particulate matter includes particles with diameters that are generally 2.5 microns or smaller ($PM_{2.5}$) and particles with diameters that are generally 10 microns or smaller (PM_{10}). It contributes to effects that are harmful to human health and the environment, including premature mortality, aggravation of respiratory and cardiovascular disease, decreased lung function, visibility impairment, and damage to vegetation and ecosystems. Individuals particularly sensitive to $PM_{2.5}$ exposure include older adults, people with heart and lung disease, and children.[2] $PM_{2.5}$ can be emitted by sources 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 from sources such as nitrogen oxides (NO_X), sulfur dioxide (SO_2), volatile organic compounds (VOC), and ammonia.[3]

On July 18, 1997, the EPA revised the NAAQS for particulate matter to add new standards for $PM_{2.5}$.[4] The EPA established primary and secondary annual and 24-hour standards for $PM_{2.5}$. The annual standard was set at 15.0 micrograms per cubic meter ($\mu g/m^3$)

[1] For a given air pollutant, ''primary'' national ambient air quality standards are those determined by the EPA as requisite to protect the public health. ''Secondary'' standards are those determined by the EPA as requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air. CAA section 109(b).

[2] 78 FR 3086, 3088 (January 15, 2013).

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

[4] 62 FR 38652.

based on a 3-year average of annual mean $PM_{2.5}$ concentrations, and the 24-hour (daily) standard was set at 65 µg/m^3 based on the 3-year average of the annual 98th percentile values of 24-hour $PM_{2.5}$ concentrations at each population-oriented monitor within an area.[5]

On October 17, 2006, the EPA retained the annual average NAAQS at 15 µg/m^3 but revised the level of the 24-hour $PM_{2.5}$ NAAQS to 35 µg/m^3 based on a 3-year average of the annual 98th percentile values of 24-hour concentrations.[6] [7]

On January 15, 2013, the EPA finalized the 2012 $PM_{2.5}$ NAAQS, including a revision of the annual standard to 12.0 µg/m^3 based on a 3-year average of annual mean $PM_{2.5}$ concentrations, and retaining the current 24-hour standard of 35 µg/m^3 based on a 3-year average of the 98th percentile of 24-hour concentrations.[8]

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. The EPA designated and classified the Portola area as ''Moderate'' nonattainment for the 2012 annual $PM_{2.5}$ standards based on ambient monitoring data that showed the area was above 12.0 µg/m^3 for the 2011–2013 monitoring period.[9] For the 2011–2013 period, the annual $PM_{2.5}$ design value for the Portola area was 12.8 µg/m^3 based on monitored readings at the 161 Nevada Street and 420 Gulling Street monitors.[10]

The Portola $PM_{2.5}$ nonattainment area includes the City of Portola (''Portola''), which has a population of approximately 2,100 and is located at an elevation of 4,890 feet in an intermountain basin isolated by rugged mountains. Portola averages 20 inches of precipitation annually. From October through March the nonattainment area has very cold temperatures with the average daily low temperature of approximately 22 degrees Fahrenheit. The combination of mountains, cold temperatures, and elevation can cause inversions and impair $PM_{2.5}$ dispersion, especially during the winter. For a precise description of the geographic boundaries of the Portola $PM_{2.5}$ nonattainment area, see 40 CFR 81.305.

The local air district with primary responsibility for developing a plan to attain the 2012 annual $PM_{2.5}$ NAAQS in this area is the Northern Sierra Air Quality Management District (NSAQMD or ''District''). The District worked cooperatively with the California Air Resources Board (CARB) in preparing the Portola $PM_{2.5}$ Plan. Under state law, authority for regulating sources under state jurisdiction in the Portola nonattainment area 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.

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

With respect to the statutory requirements for attainment plans for the 2012 annual $PM_{2.5}$ NAAQS, the general CAA part D nonattainment area planning requirements are found in subpart 1, and the Moderate area planning requirements specifically for particulate matter 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'').[11] The General Preamble addresses the relationship between the subpart 1 and the subpart 4 requirements and provides recommendations to states for meeting certain statutory requirements for particulate matter attainment plans. As explained in the General Preamble, specific requirements applicable to Moderate area attainment plan SIP submissions for the particulate matter 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.[12]

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'').[13] The $PM_{2.5}$ SIP Requirements Rule provides additional regulatory requirements and guidance applicable to attainment plan submissions for the $PM_{2.5}$ NAAQS, including the 2012 annual $PM_{2.5}$ NAAQS at issue in this action.

The subpart 1 statutory requirements for attainment plans include: (i) The section 172(c)(1) requirements for RACM/RACT and attainment demonstrations; (ii) the section 172(c)(2) requirement to demonstrate RFP; (iii) the section 172(c)(3) requirement for emissions inventories; (iv) the section 172(c)(5) requirements 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) requirements for attainment demonstrations; (iii) the section 189(a)(1)(C) requirements 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 December 31, 2021, for the 2012 $PM_{2.5}$ annual NAAQS. 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.[14]

III. Completeness Review of the Portola $PM_{2.5}$ Attainment Plan

CAA sections 110(a)(1) and (2) and 110(l) require each state to provide reasonable public notice and opportunity for public hearing prior to the adoption and submission 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

[5] The primary and secondary standards were set at the same level for both the 24-hour and the annual $PM_{2.5}$ standards.

[6] Under EPA regulations at 40 CFR part 50, the primary and secondary 2006 24-hour $PM_{2.5}$ NAAQS are attained when the annual arithmetic mean concentration, as determined in accordance with 40 CFR part 50, Appendix N, is less than or equal to 35 µg/m^3 at all relevant monitoring sites in the subject area, averaged over a 3-year period.

[7] 71 FR 61144.

[8] 78 FR 3086.

[9] 80 FR 2206 (January 15, 2015).

[10] From 2000 through early 2013, the Portola $PM_{2.5}$ monitoring site was located at 161 Nevada Street. In 2013, the site was relocated to 420 Gulling Street.

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

[12] 57 FR 13538.

[13] 81 FR 58010, August 24, 2016.

[14] 40 CFR 51.1006 and 51.1009.

notice and hearing prior to adoption and submission of the Portola $PM_{2.5}$ Plan. The District provided a 30-day public comment period prior to its January 23, 2017 public hearing to adopt the main SIP submission.[15] CARB provided the required public notice and opportunity for public comment prior to its February 16, 2017 public hearing and adoption of the main SIP submission.[16] CARB then adopted its supplemental SIP submission pertaining to 2019 and 2022 transportation conformity motor vehicle emission budgets at its October 26, 2017 Board meeting after reasonable public notice.[17] Each submission includes proof of publication of notices for the respective public hearings. We find, therefore, that the Portola $PM_{2.5}$ 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 submission 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 February 28, 2017 and December 20, 2017 SIP submissions became complete by operation of law on August 28, 2017 and June 20, 2018, respectively.

IV. Review of the Portola $PM_{2.5}$ 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] area . . . .'' By requiring an accounting of actual emissions from all sources of the relevant pollutants in the area, this section provides for the base year inventory to include all emissions that contribute to the formation of a particular NAAQS pollutant. For the 2012 $PM_{2.5}$ NAAQS, this includes emissions of direct $PM_{2.5}$ as well as the main chemical precursors to the formation of secondary $PM_{2.5}$: NO_X, SO_2, VOC, and ammonia. Primary $PM_{2.5}$ includes condensable and filterable particulate matter.

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)[18] road dust method for calculating re-entrained road dust emissions from paved roads.[19] The latest EPA-approved version of California's mobile source emission factor model is EMFAC2014.[20]

In addition to the base year inventory submitted to meet the requirements of CAA section 172(c)(3), the State must also submit future ''baseline inventories'' for the projected attainment year and each RFP milestone year, and any other year of significance for meeting applicable CAA requirements.[21] By ''baseline inventories'' (also referred to as ''projected baseline inventories''), we mean projected emissions inventories for future years that account for, among other things, the ongoing effects of economic growth and adopted emissions control requirements. The SIP submission should include documentation to explain how the state calculated the emissions projections.

2. Emissions Inventory in the Portola $PM_{2.5}$ Plan

The Portola $PM_{2.5}$ nonattainment area emissions inventory is typical of a small, high elevation mountain community. There are no major stationary sources or large industrial sources (existing or anticipated) and residential wood burning is a significant source of direct $PM_{2.5}$. A summary of the planning emissions inventories for direct $PM_{2.5}$ and all $PM_{2.5}$ precursors (NO_X, SO_X, VOC, and ammonia)[22] for the Portola $PM_{2.5}$ nonattainment area is found in section III. Detailed inventories for the Portola $PM_{2.5}$ nonattainment area together with documentation for the inventories are found in Appendix B of the Plan. CARB and District staff worked jointly to develop the emissions inventory for the Portola $PM_{2.5}$ nonattainment area. The District worked with operators of the three stationary facilities in the nonattainment area to develop the stationary source emissions estimates.[23] CARB staff developed the emissions inventory for mobile sources, both on-road and off-road.[24] The District and CARB shared responsibility for developing estimates for the area sources such as residential wood burning and paved road dust.

The Plan includes annual average emissions inventories for the 2013 base year and estimated emissions for the 2019, 2021, and 2022 future baseline years. Future baseline inventories are a projection of the base year inventory taking into account expected growth trends for each source category and emission reductions from control measures adopted prior to January 1, 2013. CARB develops emissions projections by applying growth and control profiles to the base year inventory.[25]

Each inventory includes emissions from stationary, area, on-road, and non-

[15] The District public notice posted on its website for January 23, 2017 public hearing (undated); February 14, 2017 proof of publication from Plumas County News of public notice for January 23, 2017 public hearing; December 14, 2016 proof of publication from Feather Publishing Co., Inc. of public notice that public notice for January 23, 2017 public hearing published in the Feather River Bulletin, Indian Valley Record, and Portola Reporter during the week beginning December 14, 2016; and NSAQMD Governing Board Resolution 2017–01, ''In the Matter of Adopting the Portola Fine Particulate Matter ($PM_{2.5}$) Attainment Plan (Portola Plan) as required by the Federal Clean Air Act,'' January 13, 2017.

[16] CARB, Notice of evidence of listserve publication, ''arbcombo—Notice of Public Meeting for February 16, 2017,'' and ''Notice of Public Meeting to Consider the Approval of the Portola $PM_{2.5}$ State Implementation Plan,'' both dated January 13, 2017; CARB Board Resolution 17–2, ''Portola $PM_{2.5}$ State Implementation Plan,'' February 16, 2017.

[17] CARB Board Resolution 17–28, ''Supplemental Transportation Conformity Emissions Budgets for the Portola Fine Particulate Matter ($PM_{2.5}$) Attainment Plan,'' October 26, 2017.

[18] 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 emission tests results.

[19] 76 FR 6328 (February 4, 2011).

[20] The EMFAC model (short for EMission FACtor) is a computer model developed by CARB. The EPA approved EMFAC2014 for use in SIP revisions and transportation conformity at 80 FR 77337 (December 14, 2015).

[21] 40 CFR 51.1007(a), 51.1008(b), and 51.1009(f); see also U.S. EPA, ''Emissions Inventory Guidance for Implementation of Ozone [and Particulate Matter] National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations,'' available at *http://www.epa.gov/sites/production/files/2014-10/documents/2014revisedeiguidance_0.pdf.*

[22] The Portola $PM_{2.5}$ 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.

[23] CARB's facility search engine website shows for 2016 in the Portola $PM_{2.5}$ nonattainment area there are no major stationary sources and only three non-major stationary sources. Two of the non-major sources reported zero particulate matter (PM) emissions in 2016, and the third non-major source (*i.e.,* White Cap Ready Mix #1) reported 1.9 tons per year of PM emissions. For more information see *https://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php.*

[24] The EPA regulations refer to ''nonroad'' vehicles and engines whereas California Air Resources Board (CARB) regulations refer to ''off-road'' vehicles and engines. These terms refer to the same types of vehicles and engines, and for the purposes of this action, we will be using CARB's chosen term, ''off-road,'' to refer to such vehicles and engines.

[25] Portola $PM_{2.5}$ Plan, Appendix B.

road sources. The inventories use EMFAC2014 for estimating on-road motor vehicle emissions.[26] Re-entrained paved road dust emissions were calculated using the EPA's AP–42 road dust methodology.[27]

Table 1 provides a summary of the annual average inventories in tons per day (tpd) of direct $PM_{2.5}$ and $PM_{2.5}$ precursors for the base year of 2013. These inventories provide the basis for the control measure analysis and the RFP and attainment demonstrations in the Portola $PM_{2.5}$ Plan. For a detailed breakdown of the inventories, see Appendix B, Tables 6–10 in the Portola $PM_{2.5}$ Plan.

TABLE 1—PORTOLA ANNUAL AVERAGE EMISSIONS INVENTORY FOR DIRECT $PM_{2.5}$ AND $PM_{2.5}$ PRECURSORS FOR THE 2013 BASE YEAR (tpd)

Category	Direct $PM_{2.5}$	NO_X	SO_X	VOC	Ammonia
Stationary Sources	0.007	0.002	0.000	0.016	0.018
Area Sources	0.468	0.048	0.015	0.661	0.142
On-Road Mobile Sources	0.005	0.181	0.0003	0.101	0.005
Off-Road Mobile Sources	0.011	0.273	0.0001	0.162	0.0001
Totals	0.490	0.504	0.016	0.940	0.149

Source: Portola $PM_{2.5}$ Plan, Section III, Table 3 (p. 24) and Appendix B, Tables 6–10.

3. The EPA's Evaluation and Proposed Action

The inventories in the Portola $PM_{2.5}$ 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 in 2015 and 2016, including the latest version of California's mobile source emissions model, EMFAC2014. The inventories comprehensively address all source categories in the Portola $PM_{2.5}$ nonattainment area and were developed consistent with the EPA's inventory guidance. For these reasons, we are proposing to approve the 2013 base year emissions inventory in the Portola $PM_{2.5}$ Plan as meeting the requirements of CAA section 172(c)(3). We are also proposing to find that the projected baseline inventories in the Plan provide an adequate basis for the RACM, RFP, and attainment demonstrations in the Portola $PM_{2.5}$ Plan.

B. $PM_{2.5}$ Precursors

1. Precursor Requirements

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 SO_2, NO_X, 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 expressed exception to the control requirements under subpart 4 for sources of $PM_{2.5}$ 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 sources in a given nonattainment area is not necessary.

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 significantly to $PM_{2.5}$ levels that exceed the standard in the area.[28] Such a comprehensive precursor demonstration must include a concentration-based contribution analysis (*i.e.,* evaluation of the contribution of a particular precursor to $PM_{2.5}$ levels in the area) and may also include a sensitivity-based contribution analysis (*i.e.,* evaluation of the sensitivity of $PM_{2.5}$ levels in the area to a decrease in emissions of the precursor). 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 current attainment plan.[29]

The EPA issued the draft $PM_{2.5}$ Precursor Demonstration Guidance (''Draft Guidance'') to provide recommendations to states for appropriate precursor demonstrations in nonattainment plan SIP submissions.[30] For the annual $PM_{2.5}$ NAAQS, section 2.2 of the Draft Guidance recommends use of 0.2 $\mu g/m^3$ as a threshold below which ambient air quality impacts could be considered ''insignificant,'' *i.e.,* impacts that do not ''contribute'' to $PM_{2.5}$ concentrations that exceed the NAAQS. When considering whether a precursor contributes significantly to $PM_{2.5}$ levels which exceed the NAAQS in the area, a state may also consider additional factors based on the facts and circumstances of the area. As to air quality impacts that exceed the 0.2 $\mu g/m^3$ contribution threshold, states may provide additional support for a conclusion that a particular precursor does not contribute significantly to ambient $PM_{2.5}$ levels that exceed the NAAQS. States may consider information such as the amount by which the impacts exceed the recommended contribution threshold, the severity of nonattainment at relevant monitors and/or grid cell locations in the area, anticipated growth or loss of sources, analyses of speciation data and

[26] Portola $PM_{2.5}$ Plan, Appendix B.

[27] Id.

[28] 40 CFR 51.1006(a)(1).

[29] Id.

[30] EPA Office of Air Quality Planning and Standards, ''$PM_{2.5}$ Precursor Demonstration Guidance,'' EPA–454/P–16–001, November 17, 2016 draft, available at *https://www.epa.gov/pm-pollution/draft-pm25-precursor-demonstration-guidance.*

precursor emission inventories, and air quality trends.[31]

2. Precursor Demonstration in the Plan

Section V.C. of the Plan contains the State's demonstration that emissions of SO_X, NO_X, ammonia, and VOC from all existing sources in the nonattainment area do not contribute significantly to $PM_{2.5}$ levels that exceed the NAAQS. The demonstration includes a concentration-based portion, a sensitivity-based portion, and additional relevant information. The concentration-based portion is summarized in Table 8 of the Plan, based on 2013–2014 species composition data, and used to represent the base year design value used as the starting point in the rollback attainment demonstration as described in section IV.E.[32] All four precursors together account for 6.3% of the 2013 $PM_{2.5}$ design value. Organic matter and elemental carbon, mainly from wood burning, are the dominant contributors and account for 89% of the 2013 design value.

For VOC emissions, the corresponding ambient $PM_{2.5}$ component is anthropogenic Secondary Organic Aerosol (SOA). Based on comparison to ambient SOA concentrations per ton of total VOC emissions at other California locations, the State estimated Portola SOA concentrations of 0.02–0.05 μg/m^3. The State also noted that seasonal organic carbon (OC) measurements at Portola are indistinguishable from background levels during the summer. Because SOA is a subset of OC, and summer is when SOA is highest due to the warmer temperatures, the State found that Portola's SOA is comparable to the 0.06 μg/m^3 observed at nearby background interagency monitoring of protected visual environments (IMPROVE) sites [33] and well below the 0.2 μg/m^3 contribution threshold.

The ambient species concentrations corresponding to SO_X, NO_X, and ammonia were 0.41, 0.46, and 0.48 μg/m^3, respectively. Because these are all above the recommended contribution threshold of 0.2 μg/m^3, the State conducted a follow-up sensitivity-based analysis. The sensitivity-based portion of the precursor demonstration used a variant of the rollback attainment demonstration based on Positive Matrix Factorization (PMF) as described in section IV.B.2 of this notice.[34] The rollback model scales $PM_{2.5}$ component concentrations (excluding background) according to changes in emissions. Ammonium nitrate was scaled proportional to NO_X emissions; ammonium sulfate was scaled proportional to SO_X emissions; and ammonium was scaled proportional to ammonia emissions. These were all on a conservative one-to-one basis; that is, a 1% emission change leads to a 1% concentration change. The sensitivity emission reductions modeled were 10%, 25%, 30%, 50%, and 70%.

As in the attainment demonstration, the precursor demonstration used the estimated 2021 design value. The $PM_{2.5}$ effect of both the sensitivity reductions and the yearly reductions were combined to estimate the effect on the design value. Table 9 of the Plan lists the $PM_{2.5}$ design values resulting from a 10 to 70% reduction in emissions of each pollutant.[35] For SO_X and ammonia, the reductions have a negligible impact on the attainment year design value. The design values listed for the 70% emission reduction show $PM_{2.5}$ responses of 0.09 and 0.11 μg/m^3 for SO_X and ammonia respectively, both well below the recommended contribution threshold.

For NO_X sensitivity, the Plan includes a discussion of the ambient response to a 30% reduction, 0.16 μg/m^3, which is below the 0.2 μg/m^3 contribution threshold. However, the given design values for 50% and 70% reductions show responses of 0.26 μg/m^3 and 0.39 μg/m^3 respectively, which are above the recommended contribution threshold.

Beyond the concentration-based and sensitivity-based analyses, the Plan provides several pieces of additional information to help assess the significance of NO_X as a $PM_{2.5}$ precursor. Table 7 of the Plan shows that NO_X emissions in the Portola nonattainment area, estimated at 0.5 tpd, are far smaller than the NO_X emissions in several other California counties, which range from 46.5 to 104.0 tpd.[36] The Plan also shows that 90% of the NO_X emissions in Portola are from mobile sources, which already are stringently controlled; $PM_{2.5}$ concentrations would be not be sensitive to realistic additional control on these sources.

Supporting supplemental data from CARB shows trends in emissions and species concentrations during 2002–2016.[37] The data are for the Mountain Counties Air Basin, which comprises Plumas County and eight other similar counties that are also largely rural, wooded areas spanning the foothills to the crest of the Sierra Nevada mountains. Ammonia emissions during this period were essentially constant, but NO_X and SO_X emissions decreased by 46% and 67%, respectively. During the same time span, nitrate and sulfate concentrations decreased by 23% and 16%, respectively. Since nitrate and sulfate were responding to NO_X and SO_X emissions reductions, this suggests that ammonium nitrate formation is NO_X-limited and ammonium sulfate is SO_X-limited, rather than either being ammonia-limited. These observations support a finding that ammonia is an insignificant $PM_{2.5}$ precursor, for which controls would be of little benefit.

Based on its evaluations, the State concluded that additional controls on $PM_{2.5}$ precursors would have an insignificant effect on $PM_{2.5}$ concentrations, and that precursors need not be included in the controls analysis.

3. The EPA's Evaluation and Proposed Action

The comprehensive precursor demonstration provided in the Plan meets the requirements of 40 CFR 51.1006(a)(1) and is consistent with the EPA's recommendations in the Draft Guidance. The demonstration contains a concentration-based contribution analysis for VOC and sensitivity-based contribution analyses for NO_X, SO_X, and ammonia, together with additional information about the Portola area, as recommended in the Draft Guidance (*e.g.,* emission inventory and ambient $PM_{2.5}$ composition data).

For the SO_2 concentration-based analysis, the Plan states that background sulfate concentrations are 97% of the 0.41 μg/m^3 measured at Portola. The remaining 3% of the sulfate, or 0.012 μg/m^3, is attributable to Portola sources. This 3% contribution from Portola sources to $PM_{2.5}$ levels above the NAAQS is well below the EPA's 0.2 μg/m^3 contribution threshold.

For the VOC concentration analysis, the Plan provides several estimates of SOA at Portola. The estimates, which

[31] Id. at 17.

[32] Portola $PM_{2.5}$ Plan, 51.

[33] IMPROVE is a monitoring program managed by the EPA and other federal and state agencies to assess visibility and aerosol conditions including $PM_{2.5}$ species in Class I areas such as national parks. For more information, go to *http://vista.cira.colostate.edu/Improve/reconstructed-fine-mass/.*

[34] PMF is a multivariate source apportionment method that attributes $PM_{2.5}$ observed concentrations to sources through statistical and meteorological interpretation of data. PMF is one of several EPA recommended receptor modeling methods for understanding of source impacts on ambient $PM_{2.5}$ levels.

[35] Portola $PM_{2.5}$ Plan, 53.

[36] Id. at 47.

[37] Email with attachment (*i.e.,* Species Trends.xlsx) dated February 13, 2018, from Kasia Turkiewicz, CARB, to Scott Bohning and John Ungvarsky, EPA.

can be considered ''data analysis techniques'' as described in the Draft Guidance, are appropriate for refining SOA estimates from available measurements and provide a convincing case that VOCs do not contribute significantly to $PM_{2.5}$ levels that exceed the NAAQS in the area.

For NO_X, the Plan's estimate for the nitrate contribution and the corresponding sensitivity to NO_X reductions may be unrealistically high. The PMF modeling results estimated the secondary nitrate contribution to be 5.1% of the total $PM_{2.5}$, whereas the raw chemical composition data estimated only 3.3%.[38] In addition, the concentration-based analysis may have overestimated nitrate concentrations because it does not apply the sulfate, adjusted nitrate, derived water, inferred carbonaceous balance approach (SANDWICH) [39] for reconciling the mass from speciation measurements with that from the Federal Reference Method (FRM) used for design values. Because the SANDWICH adjustment generally reduces nitrate, due to nitrate losses from FRM monitors, the precursor demonstration in the Plan may be overestimating the amount of nitrate and the nitrate response to NO_X emission reductions. Thus, the approach used in the Plan results in a more conservative precursor demonstration.

The sensitivity-based precursor analysis relies on the same methodology as the attainment demonstration, including the very conservative assumption that the ambient response to NO_X reductions is in a 1:1 ratio to the emission change (on a percent basis). The responses to SO_2 and ammonia reductions were below the recommended 0.2 $\mu g/m^3$ contribution threshold, but the response to NO_X was above the threshold at 50% and 70% reductions.

The Plan includes additional information supporting a conclusion that NO_X emissions do not contribute significantly to $PM_{2.5}$ levels that exceed the NAAQS in the area. The information includes the small size of the NO_X emission inventory relative to other areas and recognition that mobile sources are already highly controlled. These are indications that ambient $PM_{2.5}$ levels would not be sensitive to additional NO_X controls.

The EPA also considered two other implications of the data provided with the Plan or as a supplement. The supplemental 2002–2016 emissions and speciation trends can be used to derive a response factor, the percent change in nitrate concentration for each percent change in NO_X emissions. Because ammonia emissions are constant, they provide a reasonable factor to use as the response to reductions of NO_X in the sensitivity analysis. Using 2002–2016 data results in a NO_X response factor of 0.378. Using this in a variant of the Plan's NO_X sensitivity analysis in place of the 1:1 assumption, the EPA found that the ambient $PM_{2.5}$ response to a 50% NO_X reduction is 0.105 $\mu g/m^3$, and the response to a 70% reduction is 0.147 $\mu g/m^3$. Both of these are below the EPA's recommended contribution threshold of 0.2 $\mu g/m^3$. (The original responses were 0.277 and 0.388 $\mu g/m^3$.) Since the years 2013–2016 were somewhat anomalous, with some nitrate increases, the EPA carried out the same exercise using just 2002–2011 data, which resulted in a NO_X response factor of 0.625. In turn, this results in a 50% response of 0.173 $\mu g/m^3$ and a 70% response of 0.243 $\mu g/m^3$. The 70% response is above but considerably closer to the recommended 0.2 $\mu g/m^3$ contribution threshold. When considered in light of the additional information discussed above, the 70% response supports a conclusion that NO_X emissions do not contribute significantly to $PM_{2.5}$ levels that exceed the NAAQS in the area.

A second implication of the data from the Plan concerns the effect of a 70% NO_X reduction on the year that the Portola area can attain the NAAQS. Under the $PM_{2.5}$ SIP Requirements Rule at 40 CFR 51.1009(a)(4)(i), if a Moderate $PM_{2.5}$ nonattainment area, such as the Portola area, can show that reducing emission of a precursor is not necessary for expeditious attainment of the NAAQS and cannot advance attainment by a year,[40] then that precursor need not be controlled for attainment purposes. Even assuming a NO_X reduction of 70%, which is very large in comparison with the historical reductions of about 6% per year, and assuming an unrealistically conservative 1:1 nitrate response ratio, the resulting response is 0.388 $\mu g/m^3$, which is less than the average 0.41 $\mu g/m^3$ per year $PM_{2.5}$ decrease seen during 2019–2021 in the attainment demonstration. This observation supports a conclusion that controlling NO_X is not necessary for expeditious attainment of the NAAQS because it would not advance the attainment date by a year in the Portola nonattainment area.

The EPA is proposing to approve the State's demonstration that emissions of $PM_{2.5}$ precursors (*i.e.,* SO_X, NO_X, ammonia, and VOC) from all existing sources located in the nonattainment area do not contribute significantly to $PM_{2.5}$ levels that exceed the standards in the area. If the EPA finalizes this proposal, the State and District would not be required to control emissions of these precursors from existing sources in the Portola $PM_{2.5}$ Plan for purposes of the 2012 annual $PM_{2.5}$ NAAQS. The State, District, and the EPA will reexamine this issue if the Portola area fails to attain the NAAQS and EPA reclassifies the area to Serious for the 2012 annual $PM_{2.5}$ NAAQS.

C. Reasonably Available Control Measures/Reasonably Available Control Technology

1. Requirements for RACM/RACT

The general subpart 1 attainment plan requirement for RACM and 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 4 years after designation of the area. The EPA reads CAA sections 172(c)(1) and 189(a)(1)(C) together to require that attainment plans for Moderate nonattainment areas provide for the implementation of RACM and 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 4 years after designation.[41]

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

[38] Plan, Figure 9, 20, and Table 8, 51.

[39] Draft Guidance, 23.

[40] 81 FR 58010, 58020 (August 24, 2016).

[41] This interpretation is consistent with guidance provided in the General Preamble at 13540.

emissions from sources in the area.[42] RACM includes reasonably available control technology (RACT).'' 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 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.[43]

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 by the state as ''additional reasonable measures.'' [44]

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.[45] 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).[46] 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.[47] Absent other indications, the EPA presumes that it is reasonable for similar sources to bear similar costs of emissions reductions. Economic feasibility of RACM and 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.[48]

Consistent with these requirements, NSAQMD 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 explicitly provides for the use of economic incentive programs (EIPs), such as the Portola voluntary wood stove change-out program, as one tool for states to use to achieve attainment of the NAAQS.[49] EIPs use market-based strategies to encourage the reduction of emissions from stationary, area, and mobile sources in an efficient manner. The EPA has promulgated regulations for statutory EIPs required under section 182(g) of the Act and has issued guidance for discretionary EIPs.[50] Where a state relies on a discretionary EIP in a SIP submission, the EPA evaluates the programmatic elements of the EIP to determine whether the resulting emission reductions are quantifiable, surplus, enforceable and permanent.[51] These four fundamental ''integrity elements,'' which apply to all EIPs and other incentive/voluntary measures relied on for SIP purposes, are designed to ensure that such programs and measures satisfy the applicable requirements of the Act.

2. RACM/RACT Analysis in the Portola $PM_{2.5}$ Plan

The State's RACM and RACT analysis is in section VI.D of the Portola $PM_{2.5}$ Plan. The emissions inventory analysis, conducted as part of the RACT analysis, confirmed that no major stationary sources of direct $PM_{2.5}$ or any $PM_{2.5}$ precursor are located in the Portola $PM_{2.5}$ nonattainment area. As discussed above in section IV.C, the State provided a demonstration that $PM_{2.5}$ precursor emissions do not contribute significantly to ambient $PM_{2.5}$ levels that exceed the standards in the area. Therefore, the Portola $PM_{2.5}$ Plan contains a RACM demonstration addressing only sources of direct $PM_{2.5}$.

3. Primary Sources of $PM_{2.5}$ in the Nonattainment Area

$PM_{2.5}$ concentrations in the Portola $PM_{2.5}$ nonattainment area are dominated by direct $PM_{2.5}$ emissions from residential wood burning. Chapter II of the Plan documents the State and District's bases for concluding that wood burning is the dominant source of $PM_{2.5}$ throughout the nonattainment area. The documentation includes seasonal and diurnal patterns in $PM_{2.5}$ concentrations, chemical composition data, PMF modeling, and statistical correlations between $PM_{2.5}$ mass and levoglucosan (a wood burning tracer). The PMF model estimated that 76% of ambient $PM_{2.5}$ on an annual basis is from wood burning. Burning of garbage in stoves, fireplaces, and in open burn piles contributes another 2.5% of annual $PM_{2.5}$ levels.

4. RACM Measures

Table 2 lists the RACM measures in the Portola $PM_{2.5}$ Plan. We discuss each of these measures in detail further below.

TABLE 2—SUMMARY OF RACM IN PORTOLA $PM_{2.5}$ NONATTAINMENT AREA

Measure	Direct $PM_{2.5}$ emission reductions (tpd)	Scheduled action	Implementation year
Voluntary Wood Stove Change-out Program with Enforceable Commitment	0.062 [a]	2016	2016–2020.
City of Portola Wood Stove and Fireplace Ordinance Mandatory Wood Burning Curtailment.	Not estimated [b]	2016	2021.
Other Provisions in City of Portola Wood Stove and Fireplace Ordinance [c]	Not estimated [d]	2016	2016.
Open Burning Requirements (NSAQMD Rules 300–317)	Not estimated [e]	2019	2019.
CARB Mobile Source Programs	0.006	Ongoing	Ongoing.
Opacity Rule (NSAQMD Rule 202)	Not estimated	Ongoing	Ongoing.

[42] 40 CFR 51.1000. ''$PM_{2.5}$ plan precursors'' are defined as ''those $PM_{2.5}$ precursors required to be regulated in the applicable attainment plan and/or NNSR program'' and ''$PM_{2.5}$ precursors'' are SO_2, NO_x, VOC, and ammonia.

[43] General Preamble at 13541 and 57 FR 18070, 18073–74 (April 28, 1992).

[44] 40 CFR 51.1000, 51.1009(a)(i)(B), and 51.1009(a)(ii)(B).

[45] 40 CFR 51.1009(a)(3).

[46] 40 CFR 51.1009(a)(3); see also 57 FR 18070, 18073–74.

[47] Id.

[48] 57 FR 18070, 18074.

[49] See, *e.g.,* CAA sections 110(a)(2)(A), 172(c)(6), and 183(e)(4).

[50] A ''discretionary economic incentive program'' is ''any EIP submitted to the EPA as an implementation plan revision for purposes other than to comply with the statutory requirements of sections 182(g)(3), 182(g)(5), 187(d)(3), or 187(g) of the Act.'' 40 CFR 51.491; see also 59 FR 16690 (April 7, 1994) (codified at 40 CFR part 51, subpart U) and ''Improving Air Quality with Economic Incentive Programs,'' EPA, January 2001 (''2001 EIP Guidance'').

[51] 2001 EIP Guidance, section 4.1.

TABLE 2—SUMMARY OF RACM IN PORTOLA $PM_{2.5}$ NONATTAINMENT AREA—Continued

Measure	Direct $PM_{2.5}$ emission reductions (tpd)	Scheduled action	Implementation year
Educational Campaign	Not estimated[f]	Ongoing	Ongoing.
Voluntary Wood Burning Curtailment Program (''Clear the Air; Check Before You Light'').	Not estimated[f]	2016	2017.

[a] The reductions from the wood stove change-out program are based on the average of the cumulative annual emission reductions from 2019–2021 (*i.e.,* 0.045 tpd in 2019, 0.065 tpd in 2020, and 0.077 tpd in 2021).

[b] Additional reductions not calculated because a variety of factors affect the amount of any potential reductions still available after implementation of change-out program (*e.g.,* number of remaining uncertified wood stoves within City of Portola; whether the 30 μg/m^3 air quality threshold is triggered to implement the curtailment; and enforcement of the curtailment).

[c] Additional reductions from the other provisions in the Ordinance and the distribution of 20 moisture meters per year are uncertain (*e.g.,* reductions from prohibition on burning unseasoned wood) and/or overlap with reductions from the change-out program. To avoid double counting of reductions from the Ordinance and the change-out programs, no additional reductions from the Ordinance are relied on for attainment.

[d] Other provisions that apply in the Ordinance include, for example, prohibiting: Installation of an uncertified wood burning device, unqualified fireplace, or uncertified fireplace in new construction or remodel; more than one certified wood burning heater per dwelling unit in new construction; a wood burning device as the sole source of heat in new construction; installation of an outdoor wood-burning boiler or hydronic heater; uncertified wood burning heater remaining in any property upon change of ownership; burning of garbage or unpermitted fuels, including unseasoned wood (less than 20% moisture content) in a wood burning devices.

[e] Additional reductions from strengthening requirements applicable to non-agricultural open burning (*e.g.,* backyard and barrel burning) to be determined at time of anticipated rulemaking in 2019, but because the non-agricultural open burning inventory is small, the additional reductions will not advance attainment.

[f] For RACM, attainment, and RFP, the District is not relying on any reductions from the educational programs or the voluntary wood burning curtailment program.

Source: Portola $PM_{2.5}$ Plan, 37 (Table 4).

a. Voluntary Wood Stove Change-Out Program

Because ambient $PM_{2.5}$ in the Portola area is primarily caused by residential wood burning, CARB and the NSAQMD have chosen to implement a voluntary wood stove change-out program as the primary RACM control strategy for the entire Portola $PM_{2.5}$ nonattainment area. Appendix L of the Plan details the voluntary wood stove change-out program. Its implementation began in 2016 and will continue through 2020. See Table 3 below for the phased schedule of changeouts.

TABLE 3—WOOD STOVE CHANGE-OUT SCHEDULE

Year	Stove changeouts	
	Per year	Cumulative
2016	100	100
2017	100	200
2018	150	350
2019	150	500
2020	100	600
2021	0	600
2022	0	600

The woodstove change-out program is primarily funded by the EPA and the District. The District has approximately $3 million to fund the replacement of 600 of the estimated 664 uncertified wood stoves [52] in use in the nonattainment area. The District is utilizing $2.48 million through the EPA's 2015 Targeted Air Shed Grant program [53] and $400,000 from H&S Performance (H&S) pursuant to a December 17, 2015 Consent Agreement and Final Order between H&S and the EPA.[54] Additionally, the District is contributing up to $60,000 from the Plumas County portion of the District's Assembly Bill 2766 Motor Vehicle Registration fee surcharge.

The change-out program includes specific requirements designed to achieve quantifiable, surplus, enforceable, and permanent $PM_{2.5}$ emission reductions in the entire Portola $PM_{2.5}$ nonattainment area. The program requirements ensure, among other things, that older, dirtier wood stoves currently in operation in the Portola $PM_{2.5}$ nonattainment area will be replaced with EPA-certified wood stoves or other less-polluting devices. Residents of the City of Portola and low-income residents living outside the city but within the nonattainment area qualify for up to $3,500 to replace an uncertified wood burning device with an EPA-certified wood burning device. The $3,500 covers all or most of the change-out costs. In an effort to replace the uncertified devices with the cleanest technology available, the District offers an additional $1,000 to city residents or low-income residents within the nonattainment area for every uncertified wood stove replaced with a pellet, propane, or kerosene device. For all other residents living outside the City of Portola but within the nonattainment area, the District offers $1,500 to replace an uncertified wood burning device with an EPA-certified wood burning device and $3,000 to replace an uncertified wood burning device with a pellet, propane or kerosene heating device. An incentive is available within the entire nonattainment area, but the two-tier funding approach increases the likelihood of the greatest number of changeouts occurring in the city, the area with the greatest concentration of people and low-income residents in the nonattainment area. As of September 30, 2018, approximately 260 changeouts were completed, and an additional 49 applications were approved for possible future changeouts.[55]

The change-out program also includes requirements for participating

[52] Throughout this notice, we use the term ''uncertified wood stove'' to refer to a wood heater that is not certified under the applicable Phase II requirements of the EPA's new source performance standards (NSPS) promulgated in 1988 for new residential wood heaters at 40 CFR part 60, subpart AAA, as effective February 26, 1988 (53 FR 5860). In 2015, the EPA revised subpart AAA, Standards of Performance for New Residential Wood Heaters (''2015 NSPS'') with an effective date of May 15, 2015, and a sell-through date of December 31, 2015. See 53 FR 5860 (March 15, 2015). Because the Voluntary Wood Stove Change-out Program began after December 31, 2015, all new certified wood heaters sold in the Portola $PM_{2.5}$ nonattainment area must meet the applicable requirements in the 2015 NSPS.

[53] The Targeted Air Shed grant program is intended to improve air quality in areas of the US with the highest levels of pollution. For more information, see *https://www.epa.gov/grants/air-grants-and-funding.*

[54] *In the Matter of H&S Performance, LLC,* Consent Agreement and Final Order (docket no. CAA–HQ–2015–8248), entered December 17, 2015. Under this agreement, H&S Performance, LLC agreed to provide $400,000 to the NSAQMD to replace, retrofit, or upgrade at least 400 inefficient wood-burning appliances.

[55] Portola Monthly Air Quality Update from NSAQMD, September 2018.

contractors/retailers to sign a contract with NSAQMD. Contractors/retailers must meet licensing, permitting, and certification requirements. The contract includes specific requirements for the collection and retention of documents, such as:

- Program tracking form,
- Copy of change-out cost estimate with District approval signature,
- Photo of uncertified woodstove installed and operational in home (prior to replacement by certified device),[56]
- Photo of certified device installed,
- Copy of building permit,
- Acknowledgement of training form (homeowner/renter), and
- Final invoice.

The retailer/contractor must also meet the following requirements for retention of records and providing training to homeowners:

- Accounting records relating to the change-out program must be retained for five years and made available for possible review by federal, State and District agencies,
- Encourage homeowners to consider replacing wood appliances with alternative fuel devices, such as propane, pellet or kerosene, and
- Train homeowners on proper appliance operation and acceptable fuels to maximize the emission reductions, including a form signed by homeowners stating that they were trained to properly operate their new heating device.

To provide assurance that the voluntary change-out program will achieve the intended emissions reductions, the District adopted an enforceable commitment to replace 600 uncertified stoves with cleaner burning devices by December 31, 2020. The EPA approved this enforceable commitment into the SIP at 83 FR 13871 (April 2, 2018). The enforceable commitment obligates the NSAQMD to achieve specific amounts of $PM_{2.5}$ emission reductions through implementation of the woodstove change-out program by specific years, to submit annual reports to the EPA detailing its implementation of the program and the projected emission reductions, and to adopt and submit substitute measures by specific dates if the EPA determines that the woodstove change-out program will not achieve the necessary emission reductions. The EPA's Technical Support Document for its April 2, 2018 final action has more information about the enforceable commitment.

b. City of Portola Wood Stove and Fireplace Ordinance

On June 22, 2016, the City of Portola adopted Ordinance No. 344, ''An Ordinance of the City of Portola, County of Plumas Amending Chapter 15.10 of the City of Portola Municipal Code Providing for Regulation of Wood Stoves and Fireplaces'' (''City Ordinance''). The City Ordinance is in Appendix M of the Plan. The EPA approved the City Ordinance into the SIP at 83 FR 9213 (March 5, 2018).

The City Ordinance includes a mandatory burning curtailment provision effective January 1, 2021. The mandatory curtailment will restrict wood burning under specific conditions. If the District determines that adverse meteorological conditions are expected to persist and $PM_{2.5}$ may exceed 30 $\mu g/m^3$ on a given day in January, February, November, or December, the District will call a ''No Burn Day.'' When a No Burn Day is called, no person may operate a wood burning heater, wood burning fireplace, wood-fired fire pit or wood-fired cookstove within the city limits unless it is an approved and currently registered EPA-certified wood burning heater.[57] The curtailment provision encourages owners of uncertified stoves to upgrade to certified stoves or risk not being able to use their uncertified wood burning device on No Burn Days called after January 1, 2021. The curtailment provision does not take effect until January 1, 2021, giving homeowners and renters time to change their stoves to EPA-certified devices during the five-year implementation of the voluntary change-out program.

The City Ordinance and the District's wood stove change-out program collectively establish most of the recommended program elements outlined in the EPA's guidance document entitled ''Strategies for Reducing Residential Wood Smoke,'' [58] including:

- A wood burning curtailment program (section 15.10.060),
- Requirements to remove uncertified wood burning stoves upon home resale (section 15.10.040.A),
- Restrictions on wood burning devices in new construction (section 15.10.030.B),
- Restrictions on the installation of wood burning fireplaces (sections 15.10.030.A and 15.10.040.B),
- A requirement that all wood burning stoves sold or transferred within the District meet the EPA's current new source performance standard certification (section 15.10.030.A),
- A prohibition on the installation of wood fired boilers or hydronic heaters (sections 15.10.030.15, 15.10.030.A and 15.10.070),
- Requirements regarding wood moisture content (section 15.10.050.A),
- Restrictions on types of materials that may be burned (seasoned wood, uncolored paper, pellets, and manufactured logs) (section 15.10.050),
- A wood burning stove change-out program (described above), and
- Education and outreach programs, including a requirement for wood stove retailers to distribute educational materials provided by the District (section 15.10.080).

Although natural gas is not available in the area, the City Ordinance does not include any exemption for a residence where an uncertified wood stove is the sole source of heat. The City Ordinance is thus more stringent than curtailment provisions implemented by other air districts, most of which exempt households using wood stoves as a sole source of heat from curtailment requirements.[59]

The District considered expanding the requirements of the City Ordinance to the entire nonattainment area but determined that this was not feasible because the District did not have sufficient funding to offer incentives to cover the full cost of changeouts outside of the City of Portola. Some residents living outside of the city limits may not have sufficient resources to changeout their stoves. For these residents, the wood burning prohibition in the City Ordinance could cause unintended health risks if their sole source of heat is an uncertified wood stove, and they were prohibited from using it. In the future, expanding application of the City Ordinance beyond city limits will be contingent upon availability of more generous incentive funds for people residing outside the city limits. The

[56] The District also developed a memorandum of understanding with the City of Portola to destroy the replaced stoves. The City matches the stove with the program tracking number, cuts the stove in half with a plasma torch, and stores the stove in a locked yard. The City fills out and signs a verification of destruction form and submits it to the District. The form contains the tracking number and photo of the destroyed stove. See Portola $PM_{2.5}$ Plan, 32.

[57] See section 15.10.060 of the City Ordinance. In section 15.10.020 of the City Ordinance, ''wood burning heater'' is defined as an enclosed wood-burning device capable of and intended for space heating such as a wood stove, pellet-fueled wood heater, or wood-burning fireplace insert, and ''EPA-certified'' is defined as any wood burning heater with a Phase II certification or a more stringent certification as currently enforced in the NSPS.

[58] EPA, ''Strategies for Reducing Residential Wood Smoke,'' Publication No. EPA–456/B–13–001, revised March 2013.

[59] See *e.g.,* South Coast Air Quality Management District Rule 445 (amended May 3, 2013), paragraph (f)(7)(A), and Sacramento Metropolitan Air Quality Management District Rule 421 (amended September 24, 2009), paragraph 112.

Plan states that if additional funding becomes available in the future, the District will offer more generous incentives to residents living outside city limits and consider expanding mandatory burning curtailment to the entire nonattainment area.[60]

c. Open Burning (NSAQMD Rules 300–317)

The District enforces open burning requirements in NSAQMD Rules 300—317 that apply to a variety of area sources such as agricultural burning, forest burning, range improvement, and residences. The District's smoke management program ensures that open burning occurs on days with good dispersion to minimize the impact from $PM_{2.5}$ concentrations. The EPA approved these rules into the SIP at 62 FR 48480 (September 16, 1997) and 64 FR 45170 (August 19, 1999).

Within the Portola nonattainment area, wood smoke can originate from open burning or from home heating devices. Residents of this area occasionally burn yard debris in open piles. Land managers (*e.g.,* U.S. Forest Service) perform prescribed burns of timber harvest waste to promote fire safety and maintain forest health. Both residents and land managers must request a burn permit prior to starting a fire. The District, in coordination with CARB, makes a declaration of either a permissive Burn Day or a No Burn Day in the context of open burning only. It does not apply to wood burning devices and is distinct from the more stringent No Burn Day program previously described in the City Ordinance. The District and CARB consider a number of factors in making no-burn declarations to ensure that smoke from open burning will not unduly contribute to the ambient $PM_{2.5}$ mass.[61]

To further reduce $PM_{2.5}$ emissions during winter, the Portola $PM_{2.5}$ Plan contains a commitment by the District to strengthen its open burning rule in 2019. The District is assessing the feasibility of green waste collection in the nonattainment area and will consider whether to adopt open burning requirements similar to District Rule 318 (''American Valley Burning Restrictions''), which prohibits the open burning of yard waste and debris or other rubbish from November 15 to March 15 in a portion of the American Valley containing Quincy and East Quincy.[62]

d. Mobile Source Measures

Mobile sources account for approximately 3% of the overall direct $PM_{2.5}$ emissions inventory in the Portola $PM_{2.5}$ nonattainment area. The Plan projects that CARB's continued implementation of adopted mobile source control measures[63] will decrease direct $PM_{2.5}$ emissions by 2021 and provide 7% of the total reductions needed to attain the 2012 $PM_{2.5}$ NAAQS. As part of the State's RACM analysis for the mobile source control program, described on pages 86–90 of the Portola $PM_{2.5}$ Plan, CARB concludes that in light of the comprehensiveness and stringency of its mobile source program, all RACM under CARB's jurisdiction are already being implemented.

e. Visible Emissions (NSAQMD Rule 202)

Rule 202 limits visible emissions (*e.g.,* particulates) and is enforced by NSAQMD. The EPA approved this rule into the SIP at 62 FR 48480 (September 16, 1997). Enforcement of Rule 202 will help identify households with highly visible emissions that may still be using uncertified wood stoves and possibly eligible for the change-out program. Rule 202 prohibits any person from discharging into the atmosphere any air contaminant for more than 3 minutes in any hour that is as dark as, or darker in shade than, that designated as No. 1 on the Ringelmann Chart or ''of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke.''[64]

f. Educational Campaign

The District is developing other voluntary measures to reduce the impact of wood smoke on $PM_{2.5}$. The District is conducting an aggressive outreach and educational campaign to help residents understand the benefits of changing from an old wood stove to a cleaner home heating device and the importance of clean burning. The District worked closely with the City of Portola and enlisted outreach partners such as the local hardware and grocery store, post office, library, senior community center, and schools to assist in the distribution of educational materials and advertise the change-out program. In addition, the Ordinance includes a requirement that retailers and contractors provide educational materials with the sale of a wood-burning device.[65]

g. Voluntary Wood Burning Curtailment Program

On November 1, 2017, the District began implementing ''Clear the Air; Check Before You Light,'' a voluntary wood burning curtailment program that runs during the peak wood-burning period (*i.e.,* November 1 through February 28) in the Portola nonattainment area. When conditions exist for potentially poor air quality, the District will issue an air quality advisory to notify the public. When an advisory is triggered the District will recommend avoiding the use of any wood burning device (including wood stoves, fireplaces, fire pits and cook stoves) to help reduce potential health impacts and possibly prevent an exceedance of federal/state air pollution standards. Use of alternative sources of heat such as electricity, propane or kerosene, are encouraged when an advisory is announced.[66]

5. The EPA's Evaluation and Proposed Action

As part of the EPA's March 5, 2018, final action approving the City Ordinance into the SIP, the EPA considered whether the City Ordinance includes all technologically and economically feasible measures for wood burning devices. We compared the provisions in the City Ordinance with other wood burning rules and with the recommendations in the EPA's guidance document entitled ''Strategies for Reducing Residential Wood Smoke.''[67] Based on this evaluation, we concluded that the City Ordinance and the District's wood stove change-out program collectively implement RACM and additional reasonable measures for residential wood burning devices in the Portola nonattainment area.[68]

[60] Portola $PM_{2.5}$ Plan, Table 4, 84–85.

[61] Id. at 22.

[62] Id. at 36.

[63] CARB has unique authority under CAA section 209 (subject to a waiver or authorization by the EPA) to adopt and implement new emissions standards for many categories of vehicles and engines. CARB has adopted standards and other requirements related to the control of emissions from numerous types of new and in-use on-road and off-road vehicles and engines, such as trucks, buses, motorcycles, passenger cars, off-road engines (gasoline and diesel-powered), off-road diesel fueled fleets, portable equipment, and marine engines. Generally, these regulations have been submitted and approved as revisions to the California SIP. See, *e.g.,* 77 FR 20308 (April 4, 2012), 81 FR 39424 (June 16, 2016), 82 FR 14446 (March 21, 2017), and 83 FR 23232 (May 18, 2018).

[64] NSAQMD Rule 202, ''Visible Emissions'' (adopted September 11, 1991).

[65] Portola $PM_{2.5}$ Plan, 34–35.

[66] NSAQMD Press Release dated October 25, 2017, Greater Portola Area Wintertime Advisory Program in Effect.

[67] EPA, ''Strategies for Reducing Residential Wood Smoke,'' Publication No. EPA–456/B–13–001, revised March 2013, and EPA, ''Residential Wood Combustion Summary of Measures—DRAFT,'' January 2016.

[68] 83 FR 9213 (November 3, 2017) and EPA, Region IX Air Division, ''Technical Support Document for the EPA's Rulemaking for the

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We note that the curtailment provisions of the City Ordinance do not take effect until 2021. Given that uncertified wood stoves are currently the primary source of heat for many residents in Portola, we do not believe it is reasonable to require implementation of a mandatory curtailment program prior to implementation of the District's five-year wood stove change-out program, which provides funding for the replacement of 600 uncertified wood stoves between 2016 and 2020. After these incentive funds are disbursed, however, implementation of a mandatory curtailment program in the Portola nonattainment area is feasible. We propose to find that the District's enforceable commitments concerning implementation of the wood stove change-out program and related monitoring and reporting commitments implement RACM for the control of $PM_{2.5}$ emissions from residential wood burning in the Portola area. Because the curtailment provision in the City Ordinance otherwise meets the definition of RACM but is implemented during the period beginning 4 years after the area's designation as nonattainment and before the attainment date, we consider it an additional reasonable measure for purposes of attaining the 2012 $PM_{2.5}$ NAAQS.

Under the CAA, the EPA is charged with establishing national emissions limits for mobile sources. States are generally preempted from establishing such limits except for California, which can establish these limits subject to EPA waiver or authorization under CAA section 209 (referred to herein as ''waiver measures''). Over the years, the EPA has issued waivers (for on-road vehicles and engines measures) or authorizations (for non-road vehicle and engine measures) for many mobile source regulations adopted by CARB.

In the past, the EPA allowed California to take into account emissions reductions from waiver measures, notwithstanding the fact that these regulations had not been approved as part of the California SIP. However, in response to the decision by the United States Court of Appeals for the Ninth Circuit in *Committee for a Better Arvin* v. *EPA,*[69] the EPA approved waiver measures as revisions to the California SIP.[70] CARB's mobile source program extends beyond regulations that are subject to the waiver or authorization process set forth in CAA section 209 to include standards and other requirements to control emissions from in-use heavy duty trucks and buses, gasoline and diesel fuel specifications, and many other types of mobile sources. Generally, these regulations have been submitted and approved as revisions to the California SIP.[71] The Portola $PM_{2.5}$ Plan relies to a very small extent on emissions reductions from implementation of the waiver measures through the use of emissions models such as EMFAC2014.

The EPA is proposing to find that the District's enforceable commitment to implement the voluntary wood stove change-out program, the City Ordinance, CARB's mobile source program, the District's commitment to strengthen its open burning measure, and other controls on sources in the nonattainment area together implement all RACM and RACT for the control of direct $PM_{2.5}$ in the Portola nonattainment area. This collective set of $PM_{2.5}$ control requirements, particularly with respect to homes where wood-burning is the sole source of heat, is at least as stringent as analogous measures implemented in other Moderate $PM_{2.5}$ nonattainment areas with similar geography and demographics. Accordingly, the EPA is proposing to approve the $PM_{2.5}$ RACM demonstration in the Portola $PM_{2.5}$ Plan as meeting the requirements of CAA sections 172(c)(1) and 189(a)(1)(C) and 40 CFR 51.1009.

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

Section 189(e) of the Act 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.[72] The control requirements applicable to major stationary sources of direct $PM_{2.5}$ in a Moderate $PM_{2.5}$ nonattainment area include, at 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 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.[73] On September 6, 2016, California submitted the required NNSR SIP revisions. We are not proposing any action on the NNSR submittal at this time and will address these requirements in a separate rulemaking.

E. Air Quality Modeling

1. Requirements for Air Quality Modeling

Section 189(a)(1)(B) of the CAA requires that a plan for a Moderate $PM_{2.5}$ nonattainment area include a demonstration (including air quality modeling) that the plan will provide for attainment by the applicable attainment date, or a demonstration that attainment by such date is impracticable. An attainment demonstration must show that the control measures in the plan are sufficient for attainment of the NAAQS by the attainment date. The attainment demonstration predicts future ambient concentrations for comparison to the NAAQS, making use of available information on ambient concentrations, meteorology, and current and projected emissions inventories, including the effect of control measures in the plan. This information is typically used in conjunction with a computer model of the atmosphere.

The EPA has provided additional modeling requirements and guidance for modeling analyses in the ''Guideline on Air Quality Models'' (''Guideline'').[74] For areas where emissions are dominated by primary PM_{10} or $PM_{2.5}$ emitted by many small dispersed sources, such as fugitive dust or residential wood burning, states have historically used a ''rollback model'' to evaluate the impacts of emissions on ambient air quality. EPA recently

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California State Implementation Plan, Northern Sierra Air Quality Management District, City of Portola Ordinance 344, Wood Stove and Fireplace Ordinance,'' July 2017.

[69] *Committee for a Better Arvin* v. *EPA,* 786 F.3d 1169 (9th Cir. 2015) (''*Arvin*''). In *Arvin,* the Ninth Circuit concluded that CAA section 110(a)(2)(A) requires that all state and local control measures on which SIPs rely to attain the NAAQS, including California waiver measures, be included in the SIP and thereby subject to enforcement by the EPA and the general public. This decision struck down the EPA's longstanding practice of approving California plans that rely on emissions reductions from waiver measures notwithstanding their lack of approval as part of the SIP.

[70] See, *e.g.,* 81 FR 39424 (June 16, 2016), 82 FR 14447 (March 21, 2017), and 83 FR 23232 (May 18, 2018).

[71] 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).

[72] General Preamble, 13539 and 13541–42. There are no major stationary sources (existing or anticipated) of direct $PM_{2.5}$ or $PM_{2.5}$ precursors in the Portola $PM_{2.5}$ nonattainment area.

[73] 81 FR 58528 at 58010 (August 24, 2016).

[74] 40 CFR part 51 Appendix W, ''Guideline on Air Quality Models,'' 82 FR 5182, January 17, 2017; available at *https://www.epa.gov/scram/clean-air-act-permit-modeling-guidance.*

approved rollback-based attainment demonstrations in the wood smoke-dominated Klamath Falls and Oakridge-Westfir $PM_{2.5}$ nonattainment areas in Oregon.[75] In a simple rollback model, the monitored ambient concentration (excluding any unchanging background concentration) is assumed to be proportional to emissions; when emissions are reduced by a given percentage, the concentration is assumed to scale or ''roll back'' by the same percentage. A variant is ''proportional rollback,'' in which rollback is applied to each emission source category individually, then summed in proportion to their ambient contributions. The proportions, or source apportionment, can be estimated using chemically speciated $PM_{2.5}$ measurements. This can be done with a receptor model such as the Chemical Mass Balance model or the PMF model, which compute the source category contributions that are the best statistical fit to the measured chemical species concentrations, given measured or estimated source species profiles.

2. Modeling in the Portola $PM_{2.5}$ Plan

The attainment demonstration, described in section V of the Plan, is based on proportional rollback, with source category proportions (source apportionment) determined using the PMF receptor model. Section V of the Plan describe the concentration starting point for the rollback, background concentrations, the mapping of ambient $PM_{2.5}$ components to $PM_{2.5}$ emission categories, and the rollback calculation procedure. In addition to a ''Traditional Rollback,'' the Plan also provides an ''Alternative Rollback,'' which is based on a more precise accounting of the impacts of various wood stove types.

The concentration starting point for rollback is typically a base year design value concentration that corresponds to the base year emissions. Instead of using the 2013 design value for the base year, the Plan used 13.9 $\mu g/m^3$, the average of the design values from 2013, 2014, and 2015. Because a single design value is a three-year average, the Plan's procedure gives a five-year weighted average centered on 2013, using concentrations from 2011–2015. This was done to reduce the effect of year-to-year variability, and to avoid basing the attainment demonstration solely on the unusually warm, dry years of 2011–2013.

In rollback, the area's emissions are used to scale only the portion of the concentration due to sources in the nonattainment area, excluding background concentrations. CARB chose speciated $PM_{2.5}$ concentrations from Bliss State Park next to Lake Tahoe in the Plan as background concentrations that would occur in the airshed in the absence of local anthropogenic emissions.

The State determined the contributions of emission source categories to ambient $PM_{2.5}$ using the PMF receptor model, described in Plan Appendix A. PMF was applied to 2011–2014 speciated $PM_{2.5}$ data for 15 chemical species. PMF determines source species profiles and source contribution levels that best fit the full set of data. The result was a source apportionment with estimates for the ambient contributions of six source categories: Wood burning, refuse burning, mobile, airborne soil, secondary nitrate, secondary sulfate.

The contributions of these source categories to the rollback base year $PM_{2.5}$ concentration are shown in the Figure 9 pie chart in the Plan, ''2011–2015 Annual Average $PM_{2.5}$ Source Contribution.'' Wood burning contributed by far the largest amount, 76.1%; mobile sources contributed 7.6%; airborne soil 3.9%; and refuse burning 2.5%. Secondary $PM_{2.5}$ in the form of ammonium nitrate and ammonium sulfate contributed 5.1% and 4.8%, respectively, of ambient $PM_{2.5}$ concentrations. Figure 11 in the Plan shows the strong correlation between concentrations of $PM_{2.5}$ and of levoglucosan, a marker for wood combustion.[76] This correlation corroborates the significant contribution of wood burning to Portola's ambient $PM_{2.5}$ levels.

Table 12 in the Portola $PM_{2.5}$ Plan shows the State's rollback calculation, in which the percent changes in the 2013 emissions of the inventory source categories are applied to their respective 2013 base year ambient contributions (excluding background). The main emissions change between base year and future emissions is for wood burning, reflecting the effect of the wood stove change-out program. For this source category, the State calculated emission reductions due to the wood stove change-out program during that period for each of the years from 2017 to 2021 using the EPA's Burn Wise Emission Calculator.[77] CARB applied reductions in tpd to the baseline emission inventory projections for annual average direct $PM_{2.5}$ emissions from residential wood burning in Table 8 of Appendix B in the Plan.

The Plan includes future year contributions from 2017 to 2021 for each source category and a total concentration for each year. Only the wood burning emissions differed for each of these years; emissions from other categories reflected their 2021 values. CARB then averaged the predicted concentrations for the 2019–2021 period to arrive at a 2021 predicted design value. The State's procedure of averaging projected concentrations for the three individual years 2019, 2020, and 2021 is similar to the procedure used for computing the 2021 monitored design value. The result of the rollback was a predicted 2021 $PM_{2.5}$ annual design value of 12.03 $\mu g/m^3$; with the rounding to one digit prescribed by 40 CFR 50 App. N, section 4.3, this meets the 12.0 $\mu g/m^3$ NAAQS.

Section V.F. of the Plan provided an ''Alternative Rollback'' model that more precisely quantified the effect of the stove change-out program on wood burning emissions. For this rollback model, all other source category emissions and their ambient contributions were assumed to remain at their base year 2013 levels. CARB calculated wood stove emissions and contributions separately for new certified stoves and uncertified stoves. This approach used the individual heating efficiency and emissions factors for these sources from the EPA's Burn Wise Emission Calculator and accounted for the number of each type of stove and the number of stove changeouts expected to occur in 2019, 2020, and 2021. CARB applied the fractional changes in emissions for these years to the wood burning portion of the 5-year weighted 13.9 $\mu g/m^3$ design value, and the three years' results averaged to arrive at a 2021 design value of 11.1 $\mu g/m^3$, which meets the 12.0 $\mu g/m^3$ NAAQS.

3. The EPA's Evaluation and Proposed Action

The EPA evaluated the State's choice of model for the attainment demonstration, as well as how the State applied the model, in terms of

[75] 81 FR 36176 (June 6, 2016), docket EPA–R10–OAR–2013–0005 for Klamath Falls; and 83 FR 5537 (February 8, 2018), docket EPA–R10–OAR–2017–0051 for Oakridge-Westfir.

[76] Levoglucosan is an organic compound formed from the pyrolysis of carbohydrates, such as starch and cellulose, the key component of wood. As a result, levoglucosan is often used as a chemical tracer for biomass burning in atmospheric chemistry studies, particularly with respect to airborne particulate matter. Jordan, T., Seen, A., Jacobsen, G., 2006, ''Levoglucosan as an atmospheric tracer for woodsmoke,'' *Atmospheric Environment,* 40 (27): 5316–5321.

[77] Portola $PM_{2.5}$ Plan Appendix E, Figure 1 and Table 2. The Burn Wise Emission Calculator is available at *https://www.epa.gov/burnwise/burn-wise-additional-resources.*

concentration starting point, background concentrations, mapping of emissions to concentrations, and the calculations used. The choice of an appropriate model for the District's attainment demonstration was informed by particular circumstances in the Portola $PM_{2.5}$ nonattainment area, most notably the dominance of primary $PM_{2.5}$ in ambient concentrations, the dispersed nature of the many small area sources responsible for it, and the relatively small fraction that is composed of secondary particulate matter. As discussed in the Plan, wood burning emissions of organic carbon and elemental carbon contribute 76% and 8%, respectively, of annual $PM_{2.5}$ concentrations in the Portola area.[78] Based on examination of meteorology, $PM_{2.5}$ emissions data and ambient $PM_{2.5}$ data, the Plan provides a well-supported demonstration that residential wood burning is the dominant contributor to the $PM_{2.5}$ air quality problem in the Portola area. The key assumption in a rollback analysis, *i.e.,* that ambient concentrations are proportional to emissions, is true for these primary $PM_{2.5}$ emissions. The EPA modeling guidance cited above does not mention rollback for attainment demonstrations but also does not fully address situations like that in the Portola area, where the dominant contributor to ambient $PM_{2.5}$ is primary $PM_{2.5}$ from many small area sources. Given that the key contributor to the air quality problem in the Portola area is already understood, neither photochemical grid models nor dispersion models would provide much information that is not already available from the rollback model. The EPA agrees that the use of rollback analysis under these facts and circumstances is consistent with EPA guidance and is appropriate for the Portola attainment demonstration and meets the Clean Air Act requirement for air quality modeling.

In addition, the EPA agrees that the Plan identifies an appropriate starting point concentration for the rollback model. The use of a five-year weighted average for the design value is not standard for rollback, but is consistent with the EPA's recommendation for the starting point of photochemical modeling attainment demonstrations. The Plan contains a reasonable justification for using a longer period to determine the starting point for the design value, based on the variable meteorology of the 2011–2015 period; the chosen procedure thus yields a more representative concentration that is appropriate for the rollback attainment demonstration. It makes for a more robust attainment demonstration that is not overly dependent on meteorological conditions in any one particular year.

The Plan contains convincing arguments for the State's selection of Bliss State Park as the source of background concentrations. The EPA agrees that the Plan's estimates for background concentrations are appropriate. The source attribution using PMF carried out for the Plan provides a good basis for the rollback model. The States also used several conservative assumptions, such as keeping certain ambient components constant instead of declining with emissions, so that the final concentration result is likely higher than would be expected with a more precise accounting.

As noted above, the Plan used the average of projections for the individual years 2019, 2020, and 2021 for the future year projection. In comparison with projecting just the single attainment year emissions and concentration, the approach used by the State is conservatively high, because the 2019 and 2020 projections do not account for all of the emission reductions from stove changeouts that will occur by the 2021 attainment year.[79]

The Plan also provides a second rollback model, termed ''Alternative Rollback.'' A key difference between the two rollback approaches is that the ''Alternative'' rollback relies more completely on the emission methodology for the residential wood burning category in the Burn Wise Emission Calculator. For both rollback approaches, the wood stove change-out program was by far the greatest source of emission and concentration reductions. The approaches relied on PMF source apportionment for the ambient effect of reductions, and they accounted for both the $PM_{2.5}$ reductions per amount of wood burned in certified stoves and for the lower amount of wood burned from their increased burn efficiency. The ''Alternative'' rollback corroborated the results of the ''Traditional'' rollback model and provides additional confidence in the attainment demonstration.

The EPA finds that the State correctly implemented the rollback model in a reasonable way, used an appropriate mapping of ambient $PM_{2.5}$ components to emission inventory categories, and incorporated an appropriate degree of conservatism. For these reasons, the EPA finds that the rollback modeling in the Plan is adequate for purposes of supporting the Portola attainment demonstration for the 2012 annual $PM_{2.5}$ NAAQS.

F. Attainment Demonstration

1. Requirements for Attainment Demonstrations

CAA section 189(a)(1)(B) requires that each state in which all or part of a Moderate $PM_{2.5}$ nonattainment area is located submit an attainment plan that includes, among other things, either a demonstration (including air quality modeling) that the plan will provide for attainment by the applicable attainment date or a demonstration that attainment by such date is impracticable. In addition, CAA section 172(c)(1) generally requires, for each nonattainment area, a plan that provides for the implementation of all RACM and RACT as expeditiously as practicable and provides for attainment of the NAAQS. The EPA interprets these two provisions together to require that an attainment demonstration for a Moderate $PM_{2.5}$ nonattainment area meet the following criteria:

(1) The attainment demonstration must show the projected attainment date for the Moderate nonattainment area that is as expeditious as practicable;

(2) The attainment demonstration must meet the requirements of 40 CFR part 51, appendix W and must include inventory data, modeling results, and emission reduction analyses on which the state has based its projected attainment date;

(3) The base year for the emissions inventory required for the attainment demonstration must be one of the 3 years used for designations or another technically appropriate inventory year if justified by the state in the plan submission; and

(4) The control strategies modeled as part of the attainment demonstration must be consistent with the control strategy requirements under 40 CFR 51.1009(a), including the requirements for RACM/RACT and additional reasonable measures.[80]

[78] Portola $PM_{2.5}$ Plan, 20 (Figure 9, 2011–2015 Annual Average $PM_{2.5}$ Source Contribution).

[79] The attainment demonstration need only show that emissions in the attainment year and the resulting projected concentration are consistent with attainment of the NAAQS; it does not need to show that the projected three-year design value meets the NAAQS. Future emissions need only be projected to the attainment year itself. See EPA, Office of Air Quality Planning and Standards, ''Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze,'' December 2014 Draft, 17 (section 2.3.2, Future Year Selection); available at *https://www.epa.gov/scram/state-implementation-plan-sip-attainment-demonstration-guidance.*

[80] 40 CFR 51.1011(a).

In addition, the attainment demonstration must provide for the implementation of all control measures needed for attainment as expeditiously as practicable and no later than the beginning of the year containing the applicable attainment date.[81]

Under longstanding guidance, the EPA has recommended presumptive limits on the amounts of emission reductions from voluntary and other nontraditional measures that may be credited in an attainment plan. Specifically, for voluntary stationary and area source measures, the EPA has identified a presumptive limit of 6% of the total amount of emission reductions required for RFP, attainment, or maintenance demonstration purposes.[82] The EPA may, however, approve measures for SIP credit in amounts exceeding the presumptive limits ''where a clear and convincing justification is made by the State as to why a higher limit should apply in [its] case.'' [83]

We discuss each of these requirements and recommendations for attainment demonstrations below.

2. Attainment Demonstration in the Portola $PM_{2.5}$ Plan

Table 4 shows the relationship between the 2013 base year inventory and the 2021 attainment year inventory before and after the wood stove change-out program. The changes to the inventory reflect a 17% reduction in the direct $PM_{2.5}$ emissions inventory is needed to demonstrate attainment by December 31, 2021.

TABLE 4—SUMMARY OF ATTAINMENT DEMONSTRATION

Category	Direct $PM_{2.5}$ (tpd)
a. 2013 Baseline Emissions	0.490
b. Projected 2021 Emissions without Change-out Program [a]	0.486
c. Reductions from Wood Stove Change-out Program [b]	0.062
d. Attainment Year Emission Inventory = Projected 2021 Emissions (b) minus Reductions from Wood Stove Change-out Program (c)	0.424

[a] Mobile source reductions of 0.006 tpd from previously adopted measures credited in projected 2021 emission inventory. See Table 8 in Appendix B of Portola $PM_{2.5}$ Plan.

[b] The average reduction for the 2019–2021 time frame is 0.062 tpd. Source: Portola $PM_{2.5}$ Plan, Table 4, 37.

Traditional rollback analysis as described in section IV.B. of this proposed rule indicates that direct $PM_{2.5}$ reductions from the woodstove change-out program (*i.e.,* 0.062 tpd average for 2019–2021 as used in the rollback) and CARB's mobile source program (*i.e.,* 0.006 tpd) result in a predicted 2021 design value of 12.03 μg/m^3 and is adequate for the State to demonstrate that the Portola area will attain the 2012 annual $PM_{2.5}$ standards by the outermost statutory attainment date as a Moderate nonattainment area of December 31, 2021.[84] Table 5 below shows the projected cumulative impact of the change-out program on emission reductions and design values. The cumulative reductions and design value calculations are offset by one year to allow for full deployment of stove changeouts in a prior year. Because the bulk of the changeouts presumably occur during the late spring, summer, and early fall, the October-December period of a given year would likely see the greatest air quality benefits from that year's changeouts, but the January-March period would not. The State's calculations result in a conservative estimate of the benefits of the wood stove change-out program because the State is only taking credit for changeouts that have been in effect for a full year. Thus, the projected benefit of changing out 600 stoves will not be fully reflected in the design value until the 2023 design value, which will include 2021, 2022, and 2023, the first period of three consecutive years with the 600 new certified devices in operation. The Portola $PM_{2.5}$ Plan also includes an alternative rollback modeling demonstration that results in a 2021 DV of 11.1 μg/m^3. The alternative rollback is described in section IV.B. of this proposed rule and in section V.F. of the Plan.

TABLE 5—RELATIONSHIP BETWEEN CUMULATIVE STOVE CHANGEOUTS, REDUCTIONS, AND DESIGN VALUES FROM ROLLBACK ANALYSIS

Year	Stove change-outs	Cumulative stove changeouts credited towards attainment	Cumulative direct $PM_{2.5}$ reductions in rollback analysis credited towards attainment (tpd)	Annual average DV (μg/m^3)
2016	100	0	0	Not calculated.
2017	100	100	.013	13.22.
2018	150	200	.026	12.91.
2019	150	350	.045	12.45.

[81] Id.

[82] See, *e.g.,* EPA, Office of Air Quality Planning and Standards, ''Incorporating Emerging and Voluntary Measure in a State Implementation Plan (SIP),'' October 4, 2004 (''2004 Emerging and Voluntary Measures Guidance''), 9; EPA, Office of Air Quality Planning and Standards and Office of Transportation and Air Quality, ''Guidance on Incorporating Bundled Measures in a State Implementation Plan,'' August 16, 2005 (''2005 Bundled Measures Guidance''), 8; and EPA, Office of Air Quality Planning and Standards, ''Guidance for Quantifying and Using Emission Reductions from Voluntary Woodstove Changeout Programs in State Implementation Plans,'' EPA–456/B–06–001, January 2006 (''2006 Woodstove Guidance''), 4.

[83] See, *e.g.,* 2004 Emerging and Voluntary Measures Guidance, 9; 2005 Bundled Measures Guidance, 8, n. 6, and 2006 Woodstove Guidance, 4.

TABLE 5—RELATIONSHIP BETWEEN CUMULATIVE STOVE CHANGEOUTS, REDUCTIONS, AND DESIGN VALUES FROM ROLLBACK ANALYSIS—Continued

Year	Stove change-outs	Cumulative stove changeouts credited towards attainment	Cumulative direct $PM_{2.5}$ reductions in rollback analysis credited towards attainment (tpd)	Annual average DV ($\mu g/m^3$)
2020	100	500	.065	11.97.
2021	0	600	.077	11.68.
Projected 2021 DV (average of 2019–2021)				12.03.

Source: Portola $PM_{2.5}$ Plan, 56–57 (tables 10 and 11).

The Portola $PM_{2.5}$ Plan relies on the wood stove change-out program to achieve 0.077 tpd of $PM_{2.5}$ emission reductions in 2021, approximately 93% of the $PM_{2.5}$ reductions relied upon in the Plan to demonstrate attainment by the December 31, 2021 attainment date. The remaining 7% of necessary emission reductions will be achieved through ongoing implementation of federal emission reduction programs and CARB's mobile source control program. To justify this extensive reliance on the voluntary wood stove change-out program for attainment purposes, the Plan: (1) Provides a detailed description of the clear need for $PM_{2.5}$ emission reductions from wood stove changeouts in the Portola area, (2) describes features of the wood stove program that provide a greater level of certainty in the quantification of emission reductions than that normally associated with voluntary programs, and (3) includes a detailed, enforceable commitment by the District to monitor and report on program implementation and to submit substitute measures by specific dates if necessary to remedy any shortfall in required emission reductions.[85]

The $PM_{2.5}$ problem in the Portola nonattainment area is overwhelmingly caused by residential wood smoke. The District estimates that between 2011 and 2015, residential wood smoke emissions contributed 76% of annual average $PM_{2.5}$ concentrations and 86% of daily $PM_{2.5}$ concentrations on days exceeding 35 $\mu g/m^3$ at the $PM_{2.5}$ monitor located in the City of Portola. Other sources contributing to annual average $PM_{2.5}$ concentrations include refuse burning (2.5%), mobile sources (7.6%), secondary sulfates (4.8%), secondary nitrates (5.1%), and airborne soil (3.9%).[86]

The average daily low temperature from October to March in the Portola nonattainment area is 21.8 degrees Fahrenheit with an average of 218 frost days per year, necessitating ample home heating.[87] CARB estimates that of 2,458 households in the nonattainment area, 1,401 use wood burning devices as a primary or secondary heating source. Of those wood burning devices, 664 are uncertified woodstoves.[88] The 2011–2015 median household income in the Portola area was 54% that of the state median and home values were 40% of the state median.[89] The unemployment rate for the City of Portola averaged 10.6% during the 2014–2016 time frame.[90] According to the District, most residents cannot afford to replace their uncertified wood burning devices without significant financial assistance.[91] Natural gas is not an option for residential heating because it is not available in the Portola nonattainment area.[92] While propane and electric options are available, the abundance of wood in the area (at no or low cost) and high cost of these alternative forms of residential heat limit their feasibility as primary heat sources.[93]

The bowl-shaped topography, cold stagnant winters, and extensive use of residential wood stoves in the Portola nonattainment area have caused evening and morning $PM_{2.5}$ concentrations to peak during the winter. According to the District, the diurnal and seasonal pattern of $PM_{2.5}$ concentrations peaking in the winter evening and overnight hours further suggests that residential wood burning is the primary cause of elevated $PM_{2.5}$ concentrations in the Portola area rather than open burning of agricultural wastes, forest management, and other burning activities.[94] Although the District has implemented many other control measures for other sources of direct $PM_{2.5}$ emissions in the area,[95] these measures alone are not sufficient to provide for attainment in the Portola area given the small percentage of the $PM_{2.5}$ emissions inventory attributed to these emission sources.

The Plan describes a number of features of the wood stove program that provide a greater level of certainty in the quantification of emission reductions than that normally associated with voluntary programs. First, full funding is already secured to entirely fund the replacement of 600 wood stoves, which the State projects to be sufficient to provide for attainment of the 2012 annual $PM_{2.5}$ NAAQS by the applicable attainment date. Second, the emission reduction projections are conservative and relatively well understood compared to other voluntary programs. This is because wood stove technologies are generally well understood; wood stoves usually remain in the residence in which they are installed and have a long useful life; usage is generally predictable due to the fixed size of the home and heating needs; emission control technology is unlikely to be

[85] EPA, Region IX Air Division, ''Technical Support Document for EPA's Notice of Proposed Rulemaking for the California State Implementation Plan, Evaluation of incentive-based emission reductions relied upon in the Portola Fine Particulate Matter ($PM_{2.5}$) Attainment Plan,'' December 2017.

[86] Portola $PM_{2.5}$ Plan, 20.

[87] Id. at 8–9.

[88] Email dated November 29, 2017, from Katarzyna Turkiewicz, CARB, to Rynda Kay, EPA, RE: questions about the number of wood stoves in the Portola nonattainment area.

[89] U.S. Census, 2011–2015 American Community Survey 5-year estimate for City of Portola, CA and State of California.

[90] Additional information on unemployment rates in Portola is available at *http://www.homefacts.com/unemployment/California/Plumas-County/Portola/96122.html.*

[91] Portola $PM_{2.5}$ Plan, 20.

[92] Id. at 29.

[93] The average residential electricity rate in the City of Portola is 17.87¢/kWh, which is approximately 50% greater than the national average rate. See Electricity Local at *http://www.electricitylocal.com/states/california/portola/.*

[94] Portola $PM_{2.5}$ Plan, 21.

[95] See Portola $PM_{2.5}$ Plan, 81–82, and our discussion of RACM/RACT and additional reasonable measures in section IV.D of this proposed rule.

tampered with; education campaigns and training requirements help ensure proper operation and fuel selection; and conservative emission factors are used in emission projections. Third, the program infrastructure is well-established. The State and District's 2017 annual report on the wood stove program shows that as of December 31, 2017, the program had successfully funded the replacement of 196 stoves.[96] The State and District estimated that replacement of these 196 uncertified stoves achieved 0.031 tpd of $PM_{2.5}$ emission reductions, 19% higher than the projected emissions reductions accounted for in the attainment demonstration, due to the fact that new stoves were cleaner than assumed in the attainment demonstration.[97]

Finally, the Plan includes detailed, enforceable commitments by the District to monitor and report on program implementation in advance of the attainment date and to submit substitute measures, if necessary, to remedy any shortfall in required emission reductions. Specifically, the District has committed to: Implement the necessary number of woodstove changeouts in accordance with specific program criteria provided in the SIP submission; to achieve, by identified dates, specific amounts of $PM_{2.5}$ emission reductions from projected baseline levels identified in the Portola $PM_{2.5}$ Plan; to submit annual reports to the EPA that identify the calculator used to quantify emission reductions and describe, among other things, the projects implemented, actions taken by the State to confirm project compliance, and any changes to program implementation forms; and to adopt and submit to the EPA, by specific dates, any substitute measures necessary to address a shortfall in required emission reductions. These commitments became federally enforceable under the CAA upon the EPA's approval of the commitments into the SIP.[98]

3. The EPA's Evaluation and Proposed Action

The EPA has reviewed the emissions inventories, RACM/RACT demonstration, air quality modeling, and control strategy fully described in the Portola $PM_{2.5}$ Plan.

In summary and as described in section IV.B of this action, the State used two modeling techniques to demonstrate attainment of the 2012 annual $PM_{2.5}$ NAAQS in the Portola nonattainment area. First, the State used a traditional rollback model to demonstrate attainment of the 2012 annual $PM_{2.5}$ NAAQS. Second, the State corroborated the results of the traditional rollback model by using an alternative rollback model to also demonstrate attainment. The results using the alternative rollback model provide additional confidence in the attainment demonstration. The EPA accepts these modeling approaches for the attainment demonstration in the Portola $PM_{2.5}$ Plan.

Consistent with the requirements of 40 CFR 51.1011(a), the attainment demonstration shows the projected attainment date that is as expeditious as practicable in the Portola area, meets the requirements of 40 CFR part 51, appendix W, and includes inventory data, modeling results, and emission reduction analyses on which the State has based its projected attainment date. In addition, the base year for the emissions inventory used in the attainment demonstration, 2013, is one of the three years used for designation of the Portola area as a nonattainment area [99] and the control strategies modeled as part of the attainment demonstration are consistent with the control strategy requirements under 40 CFR 51.1009(a), including the requirements for RACM/RACT and additional reasonable measures.

With respect to the wood stove change-out program, the EPA believes that the Portola $PM_{2.5}$ Plan provides a clear and convincing justification for more extensive reliance on a voluntary incentive program to achieve emission reductions necessary for attainment than the EPA normally recommends. First, the District has shown a clear need for additional reductions from the wood stove program, as additional regulatory measures for other $PM_{2.5}$ emission sources in the area are not sufficient to provide for attainment, and a mandatory curtailment on use of wood stoves on high-$PM_{2.5}$ winter days is not economically feasible for implementation at this time in the Portola area. Second, the State and District have identified a number of program features that provide adequate assurance that the wood stove changeout program will achieve, at minimum, the emission reductions attributed to it in the attainment demonstration. Third, the District's SIP-approved enforceable commitment ensures that the EPA and citizens can hold the District responsible for achieving the emission reductions attributed to the wood stove change-out program in the attainment demonstration.

Finally, the City Ordinance includes a mandatory curtailment of uncertified stoves on days when the 24-hour average $PM_{2.5}$ concentration is forecasted to exceed 30 $\mu g/m^3$ that begins January 1, 2021. This clear prohibition on the operation of uncertified wood stoves on days with higher $PM_{2.5}$ levels after January 1, 2021, provides additional assurance that projected emission reductions will occur in time to provide for attainment of the 2012 $PM_{2.5}$ NAAQS by the December 31, 2021 attainment date.

For all of these reasons, we propose to approve the attainment demonstration in the Portola $PM_{2.5}$ Plan as satisfying the requirements of sections 189(a)(1)(B) and 172(c)(1) of the CAA and 40 CFR 51.1011(a).

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 reasonable further progress (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, as defined in CAA section 171(1). 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 emissions reductions be achieved in any given year for purposes of satisfying the RFP requirement.

For purposes of the $PM_{2.5}$ NAAQS, 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.[100] As discussed in EPA guidance in the Addendum to the General Preamble (''Addendum''),[101] 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:

[96] CARB, ''Portola Wood Stove Change-Out, 2017 Progress Report, Covering Change-outs Completed Through 12/31/2017'' (''2017 Annual Report''), 3.

[97] Id. at 6 and 13–18.

[98] 83 FR 13871 (April 2, 2018).

[99] 80 FR 2206 (January 15, 2015).

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

[101] Id.

- 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.[102]

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 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.'' [103]

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 realized from each milestone in the schedule.[104] 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 its control measures and may implement measures that are more effective at reducing $PM_{2.5}$ earlier to provide greater public health benefits.[105]

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 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.[106] States should estimate the RFP projected emissions for each quantitative milestone year by sector on a pollutant-by-pollutant basis.[107]

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 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.[108]

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.[109] 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.[110] Because the EPA designated the Portola area nonattainment for the 2012 annual $PM_{2.5}$ NAAQS effective April 15, 2015,[111] the applicable quantitative milestone dates for purposes of the Portola $PM_{2.5}$ Plan are October 15, 2019 and October 15, 2022.

2. RFP Demonstration and Quantitative Milestones in the Portola $PM_{2.5}$ Plan

The RFP demonstration and quantitative milestones are in section VI.A of the Portola $PM_{2.5}$ Plan. The Plan estimates that emissions of direct $PM_{2.5}$ will decline steadily from 2016 to 2021 and that emissions of direct $PM_{2.5}$ will generally remain below the levels needed to show step-wise progress toward attainment. According to the State and District, step-wise progress toward attainment is justified here because before the Portola area was designated as a $PM_{2.5}$ nonattainment area in 2015, the area was designated attainment for all NAAQS and was not required to implement any air quality control program. The development of the wood stove change-out program involved an intensive effort to secure funding, establish requirements for contractors/retailers, identify and educate potential applicants, review and process completed applications, coordinate the installation of new stoves along with the removal and destruction of the old stoves, and track the progress of the program at every step. Given the time necessary to develop this program, direct $PM_{2.5}$ emissions remained flat between 2013, the base year of the Plan, and 2016, the year that the District began to implement the wood stove change-out program. By 2016, however, the District had secured the necessary funding and developed the program infrastructure, enabling it to begin full implementation of its five-year voluntary wood stove change-out program to provide for attainment by December 2021, the earliest practicable attainment date for the 2012 annual

[102] Id.

[103] Id. at 42015.

[104] Id. at 42016.

[105] Id.

[106] 40 CFR 51.1012(a).

[107] 81 FR 58010, 58056 (August 24, 2016).

[108] Id. at 42016, 42017.

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

[110] 40 CFR 51.1013(a)(1).

[111] 80 FR 2206 (January 15, 2015).

$PM_{2.5}$ NAAQS in this area. The District estimates that the change-out program will achieve $PM_{2.5}$ emission reductions representing generally linear progress toward attainment between 2016 and 2022. Because the majority of the changeouts will be completed during the summer months when homeowners are not heating their homes, the District expects that direct $PM_{2.5}$ concentrations during the second half of the year will be lower than during the first half of the year. For RFP purposes, only the changeouts accomplished during the prior year are accounted for in the projected emission reductions (*i.e.,* only reductions from changeouts in effect for a full year are credited toward RFP).[112]

The Plan's emissions inventory shows that direct $PM_{2.5}$ is emitted predominantly by residential wood combustion.[113] The Plan specifically describes the District's procedures for calculating the 2019 and 2022 RFP targets for direct $PM_{2.5}$ and documents the District's conclusion that projected $PM_{2.5}$ emission levels, based on the adopted control strategy for the area, would meet the RFP targets in both milestone years, as shown in Table 6 below.[114]

TABLE 6—RFP DEMONSTRATION FOR DIRECT $PM_{2.5}$ (TPD)

Description	2013	2019	2022
Baseline inventory[a]	0.490	0.487	0.487
Reductions from RACM control strategy[a]	0.000	0.045	0.077
Inventory after RACM control strategy implemented[b]	0.49	0.44	0.41
RFP target[b]		0.44	0.41
RFP target achieved?		Yes	Yes

[a] Reductions from CARB's mobile source measures are already included in the projected 2019 and 2022 baseline inventories.
[b] Rounding to two decimal places (hundredths of a ton).

With respect to quantitative milestones, the Portola $PM_{2.5}$ Plan identifies RFP emissions levels for direct $PM_{2.5}$ in 2019 and 2022 that show, beginning in 2016, stepwise progress towards attaining the annual $PM_{2.5}$ NAAQS in 2021. The quantitative milestones are the differences in emissions between the future baseline inventories and the future controlled inventories for 2019 and 2022, *i.e.,* the projected emission reductions in each of these years, as shown in Table 7.[115]

TABLE 7—RFP PROJECTED EMISSION REDUCTIONS FOR QUANTITATIVE MILESTONE YEARS (TPD)

Sector	2019	2022
Wood Stove Changeouts	0.045	0.077
Total	0.045	0.077

Source: Portola $PM_{2.5}$ Plan, 71–72.

The Portola $PM_{2.5}$ Plan also contains an enforceable commitment by the District to implement specific numbers of wood stove change-out projects and to achieve specific amounts of $PM_{2.5}$ emission reductions through implementation of these projects by the 2019 RFP year and the 2021 attainment year.[116]

Finally, the Portola $PM_{2.5}$ Plan states the District's commitment to track, quantify, and report to the EPA on its implementation of the adopted control strategy and on the area's progress toward attainment. The Plan also states that the District will submit to the EPA a quantitative milestone report no later than 90 days after a given milestone date (*i.e.,* by January 15, 2020 and January 15, 2023, respectively), each of which will include the following information:

- Certification that the SIP strategy is being implemented consistent with RFP;
- Technical support, including calculations to document completion statistics for each quantitative milestone; and
- Discussion of whether the $PM_{2.5}$ NAAQS will be attained by the projected attainment date.[117]

3. The EPA's Evaluation and Proposed Action

a. Reasonable Further Progress Demonstration

As discussed in section IV.C. of this proposed rule, we are proposing to determine that $PM_{2.5}$ precursors do not contribute significantly to ambient $PM_{2.5}$ levels that exceed the 2012 annual $PM_{2.5}$ NAAQS in the Portola $PM_{2.5}$ nonattainment area and, accordingly, that no RFP demonstrations for $PM_{2.5}$ precursors are necessary for purposes of the 2012 annual $PM_{2.5}$ NAAQS in this area.

With respect to direct $PM_{2.5}$, we agree that step-wise progress is an appropriate measure of RFP for the 2012 $PM_{2.5}$ NAAQS in the Portola area. It is justified because direct $PM_{2.5}$ is emitted primarily from hundreds of individual residential wood combustion sources, and the District needed adequate time to secure funding and develop the infrastructure necessary to implement a wood stove change-out program. Accordingly, the emission reductions that result from this program did not begin until 2016, but will continue throughout the duration of the Plan.

The Portola $PM_{2.5}$ Plan documents the State's conclusion that it is implementing all RACM and RACT and additional reasonable measures for direct $PM_{2.5}$ as expeditiously as practicable and identifies projected levels of direct $PM_{2.5}$ emissions in 2019 and 2022 that reflect full implementation of the State's and

[112] Portola $PM_{2.5}$ Plan, 66–72.
[113] Id. at Appendix B.
[114] Id. at 66–70.
[115] Id. at 71–72.
[116] Id. at Appendix E, 10. The EPA approved this commitment into the SIP at 83 FR 13871 (April 2, 2018).
[117] Id. at 71.

District's attainment control strategy for direct $PM_{2.5}$.[118] The wood stove change-out program provides incremental reductions of direct $PM_{2.5}$ emission from 2016 to 2021. CARB's mobile source measures also provide incremental reductions of direct $PM_{2.5}$ emissions from 2013 to 2022, and the City Ordinance is projected to achieve emission reductions beginning in 2021, to the extent those reductions have not already occurred through implementation of the wood stove change-out program. All of these measures achieve $PM_{2.5}$ reductions each year and the State and District will be reporting on RFP in the 2019 and 2022 RFP milestone years and through the 2021 attainment year.[119]

Thus, the Portola $PM_{2.5}$ Plan demonstrates that emissions of direct $PM_{2.5}$ will be reduced at rates representing stepwise progress toward attainment. The Plan also demonstrates that all RACM, RACT, and additional reasonable measures that provide the bases for the direct $PM_{2.5}$ emissions projections in the RFP analysis in the Plan are being implemented as expeditiously as practicable. Accordingly, we propose to determine that the Plan requires the annual incremental reductions in emissions of direct $PM_{2.5}$ that are necessary for the purpose of ensuring reasonable further progress towards attainment of the 2012 annual $PM_{2.5}$ NAAQS by 2021, in accordance with the requirements of CAA sections 171(1) and 172(c)(2).

b. Quantitative Milestones

The Plan adequately documents the District's methodology for identifying and calculating appropriate RFP targets for the 2019 and 2022 milestone years and contains, as part of the RACM control strategy for the area, an enforceable commitment by the District to implement specific numbers of wood stove change-out projects and thereby achieve specific amounts of $PM_{2.5}$ emission reductions by the 2019 RFP year and the 2021 attainment year.[120] These quantitative milestones provide an objective means for evaluating the area's progress toward attainment of the $PM_{2.5}$ NAAQS. We propose to approve these quantitative milestones in the Portola $PM_{2.5}$ Plan as meeting the requirements of CAA section 189(c) and 40 CFR 51.1013(a)(1). We note that, consistent with the requirements of CAA section 189(c)(2) as interpreted in longstanding EPA policy, each of the upcoming milestone reports should include technical support sufficient to document completion statistics for appropriate milestones, *e.g.,* calculations and any assumptions made concerning emission reductions to date.[121]

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.[122] 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.[123]

The purpose of contingency measures is to continue progress in reducing emissions while a state revises its SIP to meet the missed RFP requirement or to correct ongoing nonattainment. Neither the CAA nor the EPA's implementing regulations establish a specific level of emissions reductions that implementation of contingency measures must achieve, but the EPA recommends that contingency measures should provide for emissions 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.[124]

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 or that achieve emissions reductions not otherwise relied upon in the control strategy for the area (*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).

The Ninth Circuit Court of Appeals recently rejected the EPA's interpretation of CAA section 172(c)(9) to allow approval of already implemented control measures as contingency measures, in a decision called *Bahr* v. *EPA* (''*Bahr*'').[125] 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, states cannot rely on already implemented measures to comply with the contingency measure requirements under CAA section 172(c)(9).

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

The District's contingency measures are described in section VI.B of the Portola $PM_{2.5}$ Plan.

3. The EPA's Evaluation and Proposed Action

We are not proposing any action at this time on the contingency measures in the Portola $PM_{2.5}$ Plan. We intend to work with the State and District to assist them with the development and submission of contingency measures consistent with the *Bahr* decision and to act on the revised contingency measures, as appropriate, through a subsequent rulemaking.

I. Motor Vehicle Emission 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 expeditious attainment of the standards. Conformity to the SIP's goals means that such actions will not: (1) Cause or contribute to violations of a NAAQS, (2) worsen the severity of an existing violation, or

[118] Portola $PM_{2.5}$ Plan, Chapter VI, section D.3.

[119] Portola $PM_{2.5}$ Plan, Chapter VI, section A.

[120] Id. at Appendix E, 10.

[121] Addendum, 42017.

[122] See 40 CFR 51.1014(a).

[123] See 81 FR 58010, 58066; see also Addendum, 42015.

[124] See 81 FR 58010, 58066; see also General Preamble, 13512, 13543–44 and Addendum, 42014–42015.

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

(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, EPA, FHWA, and FTA to demonstrate that an area's regional transportation plans and transportation improvement programs conform to the applicable SIP.[126] This demonstration is typically done by showing that estimated emissions from existing and planned highway and transit systems are less than or equal to the motor vehicle emissions budgets (''budgets'') contained in 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 or maintenance plan, as applicable.[127]

All direct $PM_{2.5}$ SIP budgets should include direct $PM_{2.5}$ motor vehicle emissions from 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.[128]

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 reasonable further progress, attainment or maintenance strategy.[129] The criteria for insignificance determinations can be found 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 the providing for insignificance determinations is described in the July 1, 2004 revision to the Transportation Conformity Rule at 69 FR 40004.

For motor vehicle emissions budgets to be approvable, they must meet, at a minimum, the EPA's adequacy criteria (40 CFR 93.118(e)(4)).

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.[130] The second of these milestone dates, October 15, 2022,[131] falls after the attainment date for the Portola 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.[132] Although the post-attainment year quantitative milestone is a required element of a Moderate area plan, it is not necessary to demonstrate transportation conformity for 2022 or to use the 2022 budgets in transportation conformity determinations until such time as the area fails to attain the 2012 $PM_{2.5}$ NAAQS.

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

The Portola $PM_{2.5}$ Plan includes budgets for direct $PM_{2.5}$ for 2019 and 2022 (RFP milestone years) and 2021 (projected attainment year for the 2012 annual NAAQS).[133] The direct $PM_{2.5}$ budgets include tailpipe, brake wear, and tire wear emissions.[134]

The $PM_{2.5}$ budgets were calculated using EMFAC2014, CARB's latest approved version of the EMFAC model for estimating emissions from on-road vehicles operating in California,[135] and reflect annual daily average emissions consistent with the 2019 and 2022 RFP milestone years and the 2021 attainment demonstration for the annual $PM_{2.5}$ NAAQS. The 2019 and 2021 conformity budgets for direct $PM_{2.5}$, expressed in annual average tons per day, are provided in Table 8. As explained further below, we are not acting on the 2022 budgets at this time.

TABLE 8—ANNUAL AVERAGE CONFORMITY BUDGETS FOR $PM_{2.5}$ (TPD)

Category	2019	2021
Direct exhaust, tire, and brake wear from on road vehicles[a]	0.0026	0.0026
Total	0.0026	0.0026
Conformity Budget[b]	0.003	0.003

[a] Calculated from default EMFAC2014 v.1.07 output for Plumas County adjusted to reflect only the emissions from the Portola nonattainment area.

[b] Budgets are rounded up to the nearest 0.001 ton.

Appendix P of the Portola $PM_{2.5}$ Plan contains the State's evaluation of $PM_{2.5}$ precursors and the bases for its conclusion that emissions of VOC, SO_2,

[126] The Portola nonattainment area does not lie within, or share a border with any MPO, nor does any MPO model any projects within the Portola nonattainment area. Therefore, the Portola nonattainment area meets the definition in the transportation conformity rule for an isolated rural nonattainment area. The California Department of Transportation performs many of the functions in isolated rural nonattainment areas that the conformity rule requires of MPOs. Isolated rural nonattainment areas have no federally required metropolitan transportation plan or program. A regional emissions analysis is required only when a non-exempt regionally significant project is proposed in the isolated rural area. For further details on isolated rural nonattainment areas and the transportation conformity requirements in those areas, see 40 CFR 93.101 and 93.109(g).

[127] 40 CFR 93.118(e)(4)(v).

[128] 40 CFR 93.102(b)(3), 93.102(b)(2)(v), and 93.122(f); see also conformity rule preamble at 69 FR 40004, 40031–40036 (July 1, 2004).

[129] 40 CFR 93.102(b)(2)(iv).

[130] 40 CFR 51.1013(a)(1).

[131] Because the Portola 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 (January 15, 2015).

[132] 81 FR 58010, 58058 and 58063–64 (August 24, 2016).

[133] Portola $PM_{2.5}$ Plan, section VI.C (for 2021 budgets) and ''Transportation Conformity Budgets for the Portola $PM_{2.5}$ SIP Plan Supplement'' (for 2019 and 2022 budgets) dated December 20, 2017, and adopted by CARB Board on October 26, 2017.

[134] Plan at Chapter VI, section C.4, 77.

[135] See footnote 20.

NO_X, and ammonia from on-road motor vehicles are not significant contributors to the $PM_{2.5}$ nonattainment problem in the Portola area. The State focused its analysis on the contribution of on-road emissions of each precursor to the $PM_{2.5}$ design value in the Portola area, the changes in emission levels from 2013 to 2021, and motor vehicle emission control measures included in the Plan. Table 1 in Appendix P of the Portola $PM_{2.5}$ Plan shows that the on-road emission totals for direct $PM_{2.5}$ and all precursors decrease from 2013 to the 2021 attainment year. According to the State, on-road emissions of direct $PM_{2.5}$ and all precursors contribute less than 10% and on-road NO_X emissions contribute less than 2% to the $PM_{2.5}$ design value in the Portola area, compared to wood burning, which accounts for over 76% of the $PM_{2.5}$ design value.[136] On-road NO_X emissions account for approximately 36% of the total 2013 base year inventory but decline to 29% and 26% of the 2019 and 2021 inventories, respectively. The on-road NO_X emissions decrease from the 2013 base year is 0.07 tpd (or 37%) in 2019 and 0.09 tpd (or 47%) in 2021.[137] The State also evaluated on-road construction dust and paved and unpaved road dust and concluded that emissions of these pollutants are not significant contributors to the $PM_{2.5}$ nonattainment problem in the Portola area. Therefore, the Plan does not include budgets for VOC, SO_2, NO_X, ammonia, or $PM_{2.5}$ from re-entrained road dust or dust from road construction.

3. The EPA's Evaluation and Proposed Actions

With respect to $PM_{2.5}$ from re-entrained road dust, VOC, SO_2, and ammonia, neither the EPA nor the State has made a finding that on-road emissions of any of these pollutants or precursors are a significant contributor to the $PM_{2.5}$ nonattainment problem in the Portola area, and neither the approved California SIP for Portola nor the submitted Portola $PM_{2.5}$ Plan establish adequate budgets for such emissions as part of an RFP, attainment or maintenance strategy for the $PM_{2.5}$ NAAQS. Accordingly, the transportation conformity provisions of 40 CFR part 93, subpart A, do not apply with respect to $PM_{2.5}$ from re-entrained road dust or to emissions of VOC, SO_2 or ammonia for purposes of the 2012 $PM_{2.5}$ NAAQS in the Portola area.

With respect to NO_X emissions, we find that the State's evaluation of emission trends, projections of motor vehicle emissions, and the percentage of the total SIP inventory that is comprised of motor vehicle emissions is sufficient to demonstrate, consistent with 40 CFR 93.109(f), that it would be unreasonable to expect that this area would experience such growth in NO_X emissions from motor vehicles as to result in a violation of the $PM_{2.5}$ NAAQS. Accordingly, the EPA is proposing to determine that transportation-related emissions of NO_X are insignificant contributors to the $PM_{2.5}$ nonattainment problem in the Portola area.

We have evaluated the submitted direct $PM_{2.5}$ budgets for 2019 and 2021 in the Plan against our adequacy criteria in 40 CFR 93.118(e)(4) and (5) as part of our review of the budgets' approvability and will complete the adequacy review concurrent with our final action on the Portola $PM_{2.5}$ Plan.[138] On January 5, 2018, the EPA announced the availability of the budgets in the Portola $PM_{2.5}$ Plan and provided a 30-day public comment period. This announcement was posted on the EPA's Adequacy website at: *https://www.epa.gov/state-and-local-transportation/state-implementation-plans-sip-submissions-currently-under-epa#portola2018.* The comment period for this notification ended on February 5, 2018, and we did not receive any comments.

The EPA has not yet reviewed and is not taking any action at this time on the submitted budget for 2022 for the Portola $PM_{2.5}$ nonattainment area. Therefore, the submitted budget for 2022 for the Portola nonattainment area will not be used in transportation conformity determinations at this time. The EPA will begin reviewing the 2022 budget for adequacy and approval only if the area fails to attain the $PM_{2.5}$ NAAQS by December 31, 2021, the applicable Moderate area attainment date.

If the EPA were to either find adequate or approve the post-attainment milestone year motor vehicle emissions budgets now, those budgets would have to be used in transportation conformity determinations that are made after the effective date of the adequacy finding or approval even if the Portola $PM_{2.5}$ nonattainment area ultimately attains the $PM_{2.5}$ NAAQS by the Moderate area attainment deadline. As a result, the California Department of Transportation, which performs many of the MPO functions in the Portola $PM_{2.5}$ nonattainment area, would be required to demonstrate conformity for the post-attainment date milestone year and all later years addressed in the conformity determination to the post-attainment date RFP motor vehicle emissions budgets rather than the budgets associated with the attainment year for the area (*i.e.,* the motor vehicle emissions budgets for 2021). The EPA does not believe that it is necessary to demonstrate conformity using these post-attainment year budgets in areas that either the EPA anticipates will attain by the attainment date or in areas that, in fact, attain by the attainment date.

If the EPA determines that the Portola area has failed to attain the PM NAAQS by the applicable attainment date, the EPA will begin the budget adequacy and approval processes for the post-attainment year (2022) budget. If the EPA finds the 2022 budget adequate or approves it, that budget will have to be used in subsequent transportation conformity determinations. The EPA believes that initiating these processes following a determination that the area has failed to attain by the attainment date ensures that transportation activities will not cause or contribute to new violations, increase the frequency or severity of any existing violations, or delay timely attainment or any required interim emission reductions or milestones in the Portola area, consistent with the requirements of CAA section 176(c)(1)(B).

For the reasons discussed in sections V.E.v and V.F of this proposed rule, we are proposing to approve the RFP and attainment demonstrations in the Portola $PM_{2.5}$ Plan. The budgets, as given in Table 9 of this proposed rule, are consistent with these demonstrations, are clearly identified and precisely quantified, and meet all other applicable statutory and regulatory requirements including the adequacy criteria in 40 CFR 93.118(e)(4) and (5). For these reasons, the EPA proposes to approve the budgets listed in Table 8 above.

The transportation conformity rule allows us to limit the approval of budgets,[139] and CARB requested that we limit the duration of our approval of the budgets in the Plan to the period before the effective date of the EPA's adequacy finding for any subsequently submitted budgets.[140] However, we will consider

[136] Portola $PM_{2.5}$ Plan, Appendix P.

[137] Portola $PM_{2.5}$ Plan, Appendix B, Table 7.

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

[139] 40 CFR 93.118(e)(1).

[140] Letter dated December 20, 2017, from Richard W. Corey, Executive Officer, California Air Resources Board, to Alexis Strauss, Acting Regional Administrator, EPA Region 9.

the State's request to limit an approval of its budgets only if the request includes the following elements: [141]

- An acknowledgement and explanation as to why the budgets under 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 time when new budgets have been found to be adequate for transportation conformity purposes.

Because CARB's request does not include all of these elements, we cannot at this time propose to limit the duration of our approval of the submitted budgets. In order to limit the approval, we would need the information described above in order to determine whether such limitation is reasonable and appropriate in this case. Once CARB has provided the necessary information, we intend to review it and take appropriate action. If we propose to limit the duration of our approval of the budgets in the Portola $PM_{2.5}$ Plan, we will provide the public an opportunity to comment. The duration of the approval of the budgets, however, would not be limited until we complete such a rulemaking.

V. Summary of Proposed Actions and Request for Public Comment

Under CAA sections 110(k)(3), the EPA is proposing to approve SIP revisions submitted by California to address the Act's Moderate area planning requirements for the 2012 $PM_{2.5}$ NAAQS in the Portola nonattainment area. Specifically, the EPA is proposing to approve the following elements of the Portola $PM_{2.5}$ Plan:

1. The 2013 base year emissions inventories as meeting the requirements of CAA section 172(c)(3);
2. The reasonably available control measure/reasonably available control technology demonstration as meeting the requirements of CAA sections 172(c)(1) and 189(a)(1)(C);
3. The attainment demonstration as meeting the requirements of CAA sections 172(c)(1) and 189(a)(1)(B);
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); and
6. The motor vehicle emissions budgets for 2019 and 2021, because they are derived from approvable attainment and RFP demonstrations and meet the requirements of CAA section 176(c) and 40 CFR part 93, subpart A.

The EPA is not proposing any action at this time on the contingency measures or the post-attainment year (2022) budget in the Portola $PM_{2.5}$ Plan.

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.

VI. Statutory and Executive Order Reviews

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

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) 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 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 in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

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

Dated: December 4, 2018.

Deborah Jordan,

Acting Regional Administrator, Region IX.

[FR Doc. 2018–27257 Filed 12–17–18; 8:45 am]

BILLING CODE 6560–50–P

[141] 67 FR 69141 (November 15, 2002), limiting our prior approval of budgets in certain California SIPs.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2018–0787; FRL–9988–18–Region 9]

Air Plan Approval; California; Antelope Valley Air Quality Management District; Optional General SIP Category

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a revision to the Antelope Valley Air Quality Management District (AVAQMD) portion of the California State Implementation Plan (SIP). This revision concerns emissions of volatile organic compounds (VOCs) from organic liquid loading. We are proposing to approve revisions to a local rule to regulate these emission sources under the Clean Air Act (CAA or the Act). We are taking comments on this