6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2021-0408; FRL-8902-01-R9]

Clean Air Plans; Base Year Emissions Inventories for the 2015 Ozone Standards; California

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve revisions to the California State Implementation Plan (SIP) concerning the base year emissions inventories for 18 areas designated as nonattainment areas (NAAs) for the 2015 ozone National Ambient Air Quality Standards (2015 ozone NAAQS) submitted on July 24, 2020. The areas include: Amador County, Butte County, Calaveras County, Imperial County, Kern County (Eastern Kern), Los Angeles – San Bernardino Counties (West Mojave Desert), Los Angeles – South Coast Air Basin, Mariposa County, Nevada County (Western part), Riverside County (Coachella Valley), Sacramento Metro, San Francisco Bay Area, San Joaquin Valley, San Luis Obispo (Eastern part), Sutter Buttes, Tuolumne County, Tuscan Buttes, and Ventura County. We are proposing to approve these revisions under the Clean Air Act (CAA or "the Act"), which establishes emissions inventory requirements for all ozone nonattainment areas.

DATES: Written comments must arrive on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R09-OAR-2021-0408 at *https://www.regulations.gov*. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information

(CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets*. If you need assistance in a language other than English or if you are a person with disabilities who needs a reasonable accommodation at no cost to you, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Khoi Nguyen, Air Planning Office (AIR-2), EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105, (415) 947-4120, or by email at *nguyen.khoi@epa.gov*.

SUPPLEMENTAL INFORMATION: Throughout this document, "we," "us," and "our" refer to the EPA.

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I. Background

On October 26, 2015, the EPA promulgated a revised 8-hour ozone NAAQS of 0.070 parts per million (ppm).[1] In accordance with section 107(d) of the CAA, the EPA must designate an area "nonattainment" if it is violating the NAAQS or if it is contributing to a violation of the NAAQS in a nearby area.

The EPA designated 21 areas in California as nonattainment for the 2015 ozone NAAQS on June 4, 2018, effective August 3, 2018.[2] Amador County, Calaveras County, Butte County, Imperial County, Mariposa County, San Francisco Bay Area, San Luis Obispo (Eastern part), Sutter Buttes, Tuolumne County, and Tuscan Buttes NAAs were classified as Marginal nonattainment. Kern County (Eastern Kern), Nevada County (Western part), Sacramento Metro, and San Diego County NAAs were classified as Moderate nonattainment. The EPA classified the Ventura County NAA as Serious nonattainment. The EPA classified the Los Angeles-San Bernardino Counties (West Mojave Desert) and Riverside County (Coachella Valley) NAAs as Severe-15 nonattainment. The EPA classified the Los Angeles-South Coast Air Basin and San Joaquin Valley NAAs as Extreme nonattainment. The EPA designated the lands of the Pechanga Band of Luiseño Mission Indians of the Pechanga Reservation and the Morongo Band of Mission Indians as separate NAAs and classified them as Marginal and Serious nonattainment, respectively. The State of California does not have regulatory authority on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction.

The EPA finalized the 2015 ozone NAAQS SIP Requirements Rule (SRR) on December 6, 2018.[3] The SRR established implementation requirements for the 2015 ozone NAAQS, including requirements for "base year" emissions inventories under CAA section 182(a)(1). The

[1] 80 FR 65292 (October 26, 2015).
[2] 83 FR 25776 (June 4, 2018).
[3] "Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements," Final Rule, 83 FR 62998 (December 6, 2018).

2015 Ozone SRR is codified at 40 CFR part 51, subpart CC, and the emissions inventory requirements are codified at 40 CFR 51.1315.

Within two years of designations, Section 182(a)(1) of the CAA and 40 CFR 51.1315 require states and local governments to prepare base year emissions inventories for all areas exceeding the ozone standards. On July 27, 2020, the California Air Resources Board (CARB) submitted the "70 ppb Ozone SIP Submittal" ("2020 CARB SIP Submittal") to the EPA.[4] The 2020 CARB SIP Submittal contains a staff report with a release date of May 22, 2020, and attachments of emissions inventories that address base year inventory requirements for 18 of the 21 NAAs in California.[5] In this action, we are evaluating and proposing action on the 2020 CARB SIP Submittal.[6]

II. Summary and Analysis of the State's Submittal

A. Statutory and Regulatory Requirements

1. Procedural Requirements for Adoption and Submittal of SIP Revisions

CAA sections 110(a)(1) and 110(l) and 40 CFR 51.102 require states to provide reasonable notice and an opportunity for a public hearing prior to adoption of SIP revisions. Section 110(k)(1)(B) requires the EPA to determine whether a SIP submittal is complete within 60 days of receipt. Any plan that the EPA does not affirmatively determine to be complete or incomplete will become complete six months after the day of submittal by operation of law. A finding of completeness does not approve the submittal as part of the SIP, nor does it indicate that the submittal is approvable. It does start a 12-month clock for the EPA to act on the SIP submittal (see CAA section 110(k)(2)).

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[4] Letter dated July 24, 2020, from Richard W. Corey, Executive Officer, CARB, to John Busterud, Regional Administrator, EPA Region IX (submitted electronically July 27, 2020).

[5] CARB's submittal does not include the San Diego NAA, which was submitted separately via the State Planning Electronic Collaboration System (SPeCS) for SIPs on January 12, 2021. The EPA will take action on the emissions inventory for the San Diego NAA in a separate rulemaking. Because the State of California does not have regulatory authority over the Pechanga and Morongo NAAs, CARB's submittal does not include emissions inventories for these areas.

[6] The 2020 CARB SIP Submittal, Section III addresses Vehicle Miles Travel (VMT) offsets for the South Coast Air Basin, San Joaquin Valley, and Coachella Valley. The EPA will take action on VMT offsets in a separate rulemaking.

2. Requirements for Base Year Inventories

CAA section 182(a)(1) and 40 CFR 51.1315 require states to develop and submit, as a SIP revision, emissions inventories for all areas designated as nonattainment for any NAAQS. An emissions inventory for ozone is an estimation of actual emissions of air pollutants that contribute to the formation of ozone in an area. Ozone is a gas that is formed by the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NO_X) in the atmosphere in the presence of sunlight (VOC and NO_X are referred to as ozone precursors). Therefore, an emissions inventory for ozone focuses on the emissions of VOC and NO_X. VOC is emitted by many types of sources, including power plants, industrial sources, on-road and off-road mobile sources, smaller stationary sources collectively referred to as area sources, and biogenic sources. NO_X is primarily emitted by combustion sources, both stationary and mobile.

Emissions inventories provide emissions data for a variety of air quality planning tasks, including establishing baseline emissions levels (i.e., the level of anthropogenic emissions associated with violations of the ozone standard), calculating emissions reduction targets needed to attain the NAAQS and to achieve reasonable further progress (RFP) toward attainment of the ozone standard, determining emissions inputs for ozone air quality modeling analyses, and tracking emissions over time to determine progress toward achieving air quality and emissions reduction goals. For the 2015 ozone NAAQS, states should submit ozone season day[7] emissions estimates for an inventory calendar year to be consistent with the baseline year for the RFP plan as required by 40 CFR 51.1310(b). For the RFP baseline year for the 2015 ozone NAAQS states may use a calendar year for the most recently available complete triennial (3-year cycle) emissions inventory (40 CFR 51, subpart A) preceding the year of the area's effective date of designation as a nonattainment area.[8] States are required to submit estimates of VOC and NO_X

[7] See 40 CFR 51.1300(q). Also see "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations," EPA-454/B-17-002, EPA, May 2017. The selected ozone season should be representative of the conditions leading to nonattainment.
[8] 83 FR 63034–63035 (December 6, 2018). The RFP requirements specified in CAA section 182(b)(1) apply to all areas designated nonattainment for ozone classified Moderate or higher.

emissions for four general classes of anthropogenic sources: stationary point sources; area sources; on-road mobile sources; and off-road mobile sources.

B. Summary of the State's Submittal

The 2020 CARB SIP Submittal documents the public review process followed prior to its submittal to the EPA as a revision to the SIP. The submittal includes a copy of a CARB notice of public meeting on June 25, 2020 to consider the approval of the submittal,[9] a transcript from the June 25, 2020 meeting,[10] a signed resolution stating that CARB made the emissions inventories available for public review at least 30 days prior to the board hearing and that the emissions inventories were adopted after notice and public hearing,[11] and a compilation of comments received by CARB prior to and during the June 25, 2020 public meeting.[12]

CARB selected 2017 as the base year because it was the most recent calendar year for which a complete triennial inventory was required to be submitted to the EPA, and because the year is consistent with the baseline year for the reasonable further progress (RFP) plan.[13] The submitted base year emissions inventories are expressed as 2017 average ozone season day emissions in tons per day (tpd)[14] and categorized as stationary point sources, area-wide sources, on-road mobile sources, and off-road mobile sources. The 2020 CARB SIP Submittal describes methods used to estimate emissions for each category and subcategory.[15] The 2020 CARB SIP Submittal also describes how emissions were calculated for "split regions" not defined by

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[9] Notice of Public Meeting to Consider 70 Parts Per Billion Ozone State Implementation Plan Submittal, California Air Resources Board, May 22, 2020.
[10] Videoconference Meeting, State of California, Air Resources Board, CAL/EPA Headquarters, Byron Sher Auditorium, Second Floor, 1001 I Street, Sacramento, California 95814, Thursday, June 25, 2020, 9:03 a.m., James F. Peters, CSR, Certified Shorthand Reporter, License Number 10063.
[11] CARB, "70 Parts Per Billion Ozone State Implementation Plan Submittal," Resolution 20–17, June 25, 2020, Agenda Item No.: 20–6–1, signed by Ryan Sakazaki, Board Clerk.
[12] Compilation of comments received for 70 Parts Per Billion Ozone State Implementation Plan Submittal. CARB indicated in its July 24, 2020 transmittal letter to the EPA that CARB has considered all comments and has determined all are non-substantive and do not pertain to the action.
[13] 2020 CARB SIP Submittal, page 9.
[14] 2020 CARB SIP Submittal, pages 5 and 9. The submittal indicates that statewide attainment challenges for the 8-hour ozone standard occur in the summer months, defined as May-October, and that seasonal inventories account for temporal activity variations throughout the year, as determined by category-specific temporal profiles.
[15] 2020 CARB SIP Submittal, pages 10-33.

CARB's county, air basin, and district boundaries,[16] and CARB's quality assurance and quality control process.[17]

Table 1 summarizes the 2017 emissions inventories in tons of emissions per ozone season day for the Amador County, Butte County, Calaveras County, Imperial County, Kern County (Eastern Kern), Los Angeles – San Bernardino Counties (West Mojave Desert), Los Angeles – South Coast Air Basin, Mariposa County, Nevada County (Western part), Riverside County (Coachella Valley), Sacramento Metro, San Francisco Bay Area, San Joaquin Valley, San Luis Obispo (Eastern part), Tuolumne County, and Ventura County NAAs for NO_X and VOC[18] emissions.[19] The 2020 CARB SIP Submittal indicated that the Sutter Buttes and Tuscan Buttes NAAs are both small, high elevation areas and contained no anthropogenic sources; therefore there are no associated emissions inventories with these two NAAs.[20]

Table 1 – 2017 Average Ozone Season Day Emissions Inventories (tpd)

Category	NO_X	% of total	VOC	% of total
Amador County				
Stationary Sources	2.21	59	0.88	23
Area-wide Sources	0.05	1	1.55	41
On-road Mobile	1.05	28	0.64	17
Off-Road Mobile	0.44	12	0.72	19
Total	3.76	100	3.79	100
Butte County				
Stationary Sources	1.11	9	2.07	17
Area-wide Sources	0.68	5	5.09	42
On-road Mobile	4.94	39	2.52	21
Off-Road Mobile	5.92	47	2.52	21
Total	12.65	100	12.19	100
Calaveras County				
Stationary Sources	0.04	2	0.19	4
Area-wide Sources	0.1	5	2.05	43

[16] 2020 CARB SIP Submittal, page 9.
[17] 2020 CARB SIP Submittal, pages 9-10.
[18] The State of California refers to reactive organic gases (ROG) rather than VOC in some of its ozone-related SIP submissions. As a practical matter, ROG and VOC refer to the same set of chemical constituents, and for simplicity, we refer to this set of gases as VOC in this proposed rule.
[19] 2020 CARB SIP Submittal, pages 7-35.
[20] 2020 CARB SIP Submittal, page 6.

On-road Mobile	1.4	63	0.84	18
Off-Road Mobile	0.67	30	1.66	35
Total	2.21	100	4.74	100
Imperial County				
Stationary Sources	1.38	9	1.33	10
Area-wide Sources	0.21	1	6.88	49
On-road Mobile	6.05	41	2.6	19
Off-Road Mobile	7.14	48	3.18	23
Total	14.78	100	13.98	100
Kern County (Eastern Kern)				
Stationary Sources	18.13	67	1.4	20
Area-wide Sources	0.12	0	1.17	16
On-road Mobile	3.94	15	1.27	18
Off-Road Mobile	4.82	18	3.33	46
Total	27.01	100	7.18	100
Los Angeles - San Bernardino Counties (West Mojave Desert)				
Stationary Sources	23.95	32	13.88	36
Area-wide Sources	0.93	1	10.85	28
On-road Mobile	23.06	31	9.03	23
Off-Road Mobile	27.02	36	4.89	13
Total	74.95	100	38.64	100
Los Angeles - South Coast Air Basin				
Stationary Sources	43.28	12	94.27	23
Area-wide Sources	10.35	3	125.28	30
On-road Mobile	180.29	51	91.96	22
Off-Road Mobile	118.41	34	99.25	24
Total	352.32	100	410.75	100
Mariposa County				
Stationary Sources	0.02	2	0.07	3
Area-wide Sources	0.01	1	1.33	51
On-road Mobile	0.48	59	0.34	13
Off-Road Mobile	0.3	37	0.89	34
Total	0.8	100	2.63	100
Nevada County (Western part)				
Stationary Sources	0.1	3	0.76	16
Area-wide Sources	0.15	4	1.65	35
On-road Mobile	2.8	72	1.21	26
Off-Road Mobile	0.82	21	1.07	23
Total	3.86	100	4.68	100
Riverside County (Coachella Valley)				
Stationary Sources	1.31	7	3.58	24

Area-wide Sources	0.29	1	3.82	26
On-road Mobile	12.19	62	4.22	29
Off-Road Mobile	5.91	30	3.09	21
Total	19.7	100	14.71	100
Sacramento Metro				
Stationary Sources	6.21	9	23.31	25
Area-wide Sources	2.34	3	31.69	34
On-road Mobile	36.37	53	19.68	21
Off-Road Mobile	24.25	35	19.79	21
Total	69.16	100	94.46	100
San Francisco Bay Area				
Stationary Sources	32.96	17	68.49	29
Area-wide Sources	6.79	4	76.8	33
On-road Mobile	78.28	41	41.21	18
Off-Road Mobile	72.87	38	46.6	20
Total	190.9	100	233.1	100
San Joaquin Valley				
Stationary Sources	28.04	13	83.75	27
Area-wide Sources	4.21	2	154.67	50
On-road Mobile	100.38	46	34.06	11
Off-Road Mobile	87.57	40	35.37	11
Total	220.2	100	307.85	100
San Luis Obispo (Eastern part)				
Stationary Sources	0.45	58	0.09	20
Area-wide Sources	0.01	1	0.22	49
On-road Mobile	0.2	26	0.1	22
Off-Road Mobile	0.12	15	0.04	9
Total	0.77	100	0.44	100
Tuolumne County				
Stationary Sources	1.05	28	0.5	7
Area-wide Sources	0.07	2	2.15	30
On-road Mobile	1.59	42	1.15	16
Off-Road Mobile	1.08	28	3.38	47
Total	3.78	100	7.18	100
Ventura County				
Stationary Sources	2.02	11	8.08	27
Area-wide Sources	0.63	3	10.45	35
On-road Mobile	8.41	44	5.08	17
Off-Road Mobile	8.09	42	6.63	22
Total	19.14	100	30.23	100

Source: Attachment A of 2020 CARB SIP Submittal. The sum of the emissions values may not equal the totals shown due to rounding. The table excludes biogenic emissions. Additionally, there are no anthropogenic emissions from the Sutter Buttes and Tuscan Buttes NAAs.

1. Stationary Point Source Emissions

CARB estimates stationary point source emissions based on annual reports submitted by the local air districts. The inventory reflects actual emissions from industrial point sources reported to local air districts by facility operators through calendar year 2017.[21] The local air districts are responsible for working with facility operators to compile estimates, using source testing, direct measurement, or engineering calculations. CARB estimates emissions from smaller point sources, such as gasoline dispensing facilities and residential water heaters, as a group and reports them in a single source category. CARB groups stationary point source emissions into the following categories: fuel combustion, waste disposal, cleaning and surface coatings, petroleum production and marketing, and industrial processes.[22]

CARB describes the methodologies it uses for smaller point sources in Section II.B of the "Emission Inventory Components" summary of the 2020 CARB SIP Submittal.[23] The categories for these smaller point sources include: stationary non-agricultural diesel engines, agricultural diesel irrigation pumps, wine fermentation and aging, laundering, degreasing, coatings and thinners, adhesives and sealants, gasoline dispensing facilities, gasoline cargo tank, marine petroleum loading, marine petroleum unloading, and oil and gas production. In addition to describing each category, CARB provides website links to additional information on each methodology. For example, while CARB reports most of the food and agricultural processing emissions sources as individual point sources, CARB estimates the exhaust emissions from

[21] 2020 CARB SIP Submittal, page 14.
[22] 2020 CARB SIP Submittal, Attachment A. Fuel combustion subcategories: electric utilities, cogeneration, oil and gas production (combustion), manufacturing and industrial, food and agricultural processing, service and commercial, other (fuel combustion). Waste disposal subcategories: sewage treatment, incinerators, other (waste disposal). Cleaning and surface coatings subcategories: laundering, degreasing, coatings and related process solvents, printing, adhesives, and sealants. Petroleum productions and marketing subcategories: oil and gas production, petroleum marketing, other (petroleum production and marketing). Industrial processes subcategories: food agriculture, mineral processes, metal processes, wood and paper, other (industrial processes).
[23] 2020 CARB SIP Submittal, pages 14-19.

agricultural irrigation pumps from a model developed by CARB staff. This category includes emissions from the operation of diesel-fueled stationary and mobile agricultural irrigation pumps.[24]

2. Area-wide Source Emissions

CARB's area-wide source inventories include categories where emissions take place over a wide geographic area, such as consumer products, cooking, and agricultural burning. CARB groups area-wide source emissions as either solvent evaporation or miscellaneous processes.[25]

CARB describes the methodologies for each area-wide source emissions category in Section II.C of the "Emission Inventory Components" summary of the 2020 CARB SIP Submittal.[26] Area-wide source emissions estimates are developed by CARB staff as well as some air districts. The methodologies are reviewed by CARB and air district staff before inclusion in the emissions inventory. CARB uses various models and methodologies for estimating emissions from area-wide source categories. CARB also provides information describing the methodologies used for the following area-wide sources: consumer products and aerosol coatings, architectural coatings, pesticides, residential wood combustion, residential natural gas combustion, residential distillate oil and liquified petroleum gas, farming operations, fires, managed burning and disposal, and commercial cooking.[27] In addition to describing each category, CARB provides website links to additional information on each methodology. A few examples are provided below.

For the consumer products emissions estimates, CARB utilized sales and formulation data from CARB's mandatory survey of all consumer products sold in California for calendar

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[24] Section II.B.b of 2020 CARB SIP Submittal, page 15. Additional information on agricultural diesel irrigation pumps is available at *https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full1-1.pdf*.
[25] 2020 CARB SIP Submittal, Attachment A. Solvent evaporation subcategories: consumer products, architectural coatings and related process solvents, pesticides/ fertilizers, asphalt paving/roofing. Miscellaneous processes subcategories: residential fuel combustion, farming operations, construction and demolition, paved road dust, unpaved road dust, fugitive windblown dust, fires, managed burning and disposal, cooking, and other (miscellaneous processes).
[26] 2020 CARB SIP Submittal, pages 19-22.
[27] 2020 CARB SIP Submittal, pages 19-22.

years 2013 through 2015.[28] Based on the survey data, CARB staff determined the total product sales and total VOC emissions for the various product categories. Growth for personal care products is based on real disposable personal income projections per Regional Economic Models, Inc. (REMI) version 2.3. No growth is assumed for aerosol coatings. Growth for all other personal care products is based on California Department of Finance.

The California Department of Pesticide Regulation (DPR) develops month-specific emissions estimates for agricultural and structural pesticides for CARB.[29] The DPR applies Emission Potential values from the DPR database to the amount of grower-reported pesticide application in DPR's Pesticide Use Report database.[30]

CARB uses survey data and emissions factors to estimate emissions from residential wood combustion, a subcategory of residential fuel combustion.[31] In 2011, CARB updated its methodology for residential wood combustion to include more recent survey data on residential wood burning devices and consumption rates, updates to the EPA National Emissions Inventory emissions factors and improved calculation approaches.[32] The update reflects wood combustion surveys conducted by several districts including the Bay Area Air Quality Management District (AQMD) in 2007, South Coast AQMD in 2003 and 2006, Placer County Air Pollution Control District (APCD) in 2007, San Joaquin Valley APCD in 2014, and Sacramento Metropolitan AQMD in 2007. CARB also assumes no growth for this category based on the relatively stagnant residential wood fuel use over the past decade according to the American Community Survey and United States Energy Information Administration.

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[28] 2020 CARB SIP Submittal, page 19. Additional information on CARB's consumer products surveys is available at:
https://ww2.arb.ca.gov/our-work/programs/consumer-products-program/consumer-commercial-product-surveys.
[29] 2020 CARB SIP Submittal, page 20. Additional information about CARB's pesticides program is available at:
https://ww2.arb.ca.gov/solvent-evaporation-methodologies.
[30] The EP value is the fraction of the product that is assumed to potentially contribute to atmospheric VOC. California's pesticide use reporting program requires that all agricultural pesticide use must be reported monthly by growers to county agricultural commissions, who in turn, report the data to DPR. See
https://ww2.arb.ca.gov/solvent-evaporation-methodologies.
[31] 2020 CARB SIP Submittal, page 20. Additional information on this methodology is available at:
https://ww2.arb.ca.gov/miscellaneous-process-methodologies.
[32] CARB, Section 7.1 Residential Wood Combustion (Revised October 2015), available at:
http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-1_ 2011.pdf.

3. Off-Road Mobile Source Emissions

CARB has developed category-specific models for numerous off-road (also known as "nonroad") sources, including locomotives, ships, industrial and construction equipment, and recreational vehicles.[33] CARB estimated emissions from off-road sources using a suite of category-specific models or, where a new model was not available, the OFFROAD2007 model. The submittal indicated that many of the newer models were developed to support recent regulations, including in-use off-road equipment, ocean-going vessels, and others. CARB provided information describing the updates made to following off-road sources: ocean going vessels,[34] commercial harbor craft, pleasure crafts and recreational vehicles, locomotives, fuel storage and handling equipment, fuel storage and handling, diesel agricultural equipment, in-use off-road equipment (i.e., construction, industrial, mining, oil drilling, and ground support equipment), cargo handling equipment, and transportation refrigeration units.[35] In addition to describing each category, CARB provides website links to additional information on each methodology. These descriptions include the type of source represented, the types and source of data used, and the models used.

For example, CARB groups commercial harbor craft into nine vessel types, including ferry and excursion vessels, tow boats, tugboats, pilot vessels, work boats, crew and supply vessels, commercial fishing vessels, charter fishing vessels, and other.[36] Vessel and engine data were reported to CARB by vessel operators in compliance with CARB's 2007 Commercial Harbor Craft Regulation. Staff updated the crew and supply vessel emissions inventory using 2009 reporting data and developed barge and dredge vessel emissions inventory using information from a 2009 CARB survey. Vessel population data were collected from various sources,

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[33] 2020 CARB SIP Submittal, pages 11-14.
[34] CARB clarified via email that the link for ocean going vessels was updated to: *https://ww3.arb.ca.gov/msei/offroad/pubs/2019_ogv_inventory_writeup_ver_oct_18_2019.pdf*. See email dated February 9, 2021, from Stephanie Huber, CARB to Khoi Nguyen, EPA Region IX.
[35] Aircrafts are also considered off-road mobile sources. In CARB's February 9, 2021 email, CARB clarified that aircraft emissions are estimated by the districts.
[36] 2020 CARB SIP Submittal, page 11. Additional information on CARB's CHC methodology is available at*: https://www.arb.ca.gov/regact/2010/chc10/appc.pdf*.

including the U.S. Coast Guard, the California Department of Fish and Wildlife registration data, the CARB Harbor Craft Survey, and information from recent emissions inventory estimates generated for Los Angeles. Vessel and engine profiles, including vessel and engine type, age, size, annual hours of operation, and annual fuel use were developed based on the CARB survey.

4. On-road Mobile Source Emissions

CARB estimated on-road mobile emissions from cars, light and heavy-duty trucks, motorcycles, buses, and motor homes using its Emission Factors (EMFAC) model version 2017,[37] which was the latest EPA-approved version available at the time the emissions inventories were prepared.[38] The on-road emissions were calculated by applying EMFAC2017 emissions factors to the transportation activity data provided by the local metropolitan planning organizations. CARB states that EMFAC2017 includes data on California's car and truck fleets and travel activity. Light-duty motor vehicle fleet age, vehicle type, and vehicle population were based on data from the Department of Motor Vehicles (DMV), updated in 2016. The model also reflects the emissions benefits of CARB's rulemakings such as the Pavley Standards and Advanced Clean Cars Program and includes the emissions benefits from CARB's Truck and Bus Rule and previously adopted rules for other on-road diesel fleets. CARB also indicates that EMFAC2017 utilizes a socio-econometric regression modeling approach to forecast new vehicle sales and to estimate future fleet mix. Light-duty passenger vehicle population includes 2016 DMV registration data along with updates to mileage accrual using data from the Bureau of Automotive Repair Smog Check Program. Updates to heavy-duty trucks include model year specific emissions factors based on new test data, and population estimates using DMV data for in-state trucks and International Registration Plan data for out-of-state trucks.

C. The EPA's Evaluation of the State's Submittal

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[37] EMFAC is short for EMission FACtor. In August 2019, the EPA approved EMFAC2017 for SIP development and transportation purposes in California. 84 FR 41717 (August 15, 2019). CARB provides additional information and documentation on the EMFAC2017 model, available at: *https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-documentation*.

[38] 2020 CARB SIP Submittal, page 10.

1. Evaluation of Procedural Requirements

Based on the documentation included in CARB's submittal, the EPA finds that the submittal satisfies the procedural requirements of sections 110(a)(1) and 110(l) of the Act requiring states to provide reasonable notice and an opportunity for public hearing prior to adoption of SIP revisions. CARB's submittal became complete by operation of law on January 24, 2021 pursuant to section 110(k)(1)(B).

2. Evaluation of Base Year Inventory Requirements

The EPA has reviewed the 2020 CARB SIP Submittal for consistency with sections 172(c)(3) and 182(a)(1) of the CAA, and the EPA's emissions inventory requirements. In particular, the EPA has reviewed the techniques used by CARB to derive and quality assure the emissions estimates.

CARB documented the procedures used to estimate the emissions for each of the major source types. The documentation of the emissions estimation procedures is adequate for the EPA to determine that CARB followed acceptable procedures to estimate emissions.

CARB has established a quality assurance and quality control (QA/QC) process to ensure the integrity and accuracy of the emissions inventories used in the development of air quality plans. These QA/QC procedures were summarized in the documentation describing how the emissions totals were developed.[39] The EPA has determined that the QA/QC procedures are complete, adequate, and acceptable.

The EPA has also reviewed the 2017 average ozone season day base year emissions inventories in the 2020 CARB SIP Submittal. Our review included the emissions estimates for stationary sources, area-wide sources, and mobile sources. We find that CARB's selection of 2017 as the base year was appropriate for these areas because 2017 was the most recent calendar year for which a consistent and comprehensive statewide inventory was available. We also find that the emissions inventories appropriately address ozone season day emissions consistent with

[39] 2020 CARB SIP Submittal, page 9.

the definition of ozone season day emissions under 40 CFR 51.1300(q). The submittal provides sufficient information and explanation to allow the EPA to make a determination on the acceptability of the emissions inventories.

The EPA proposes to find that CARB has developed approvable inventories of NO_X and VOC emissions for the following ozone nonattainment areas as required under the CAA and SRR (40 CFR 51.1315, see also CAA section 172(c)(3)): Amador County, Butte County, Calaveras County, Imperial County, Kern County (Eastern Kern), Los Angeles – San Bernardino Counties (West Mojave Desert), Los Angeles – South Coast Air Basin, Mariposa County, Nevada County (Western part), Riverside County (Coachella Valley), Sacramento Metro, San Francisco Bay Area, San Joaquin Valley, San Luis Obispo (Eastern part), Sutter Buttes, Tuolumne County, Tuscan Buttes, and Ventura County.

III. Proposed Action

We are proposing to approve the 2020 CARB SIP Submittal to address the ozone-related emissions inventory requirements for 18 ozone nonattainment areas for the 2015 ozone NAAQS. These areas are: Amador County, Butte County, Calaveras County, Imperial County, Kern County (Eastern Kern), Los Angeles – San Bernardino Counties (West Mojave Desert), Los Angeles – South Coast Air Basin, Mariposa County, Nevada County (Western part), Riverside County (Coachella Valley), Sacramento Metro, San Francisco Bay Area, San Joaquin Valley, San Luis Obispo (Eastern part), Sutter Buttes, Tuolumne County, Tuscan Buttes, and Ventura County. The emissions inventories we are approving into the SIP are specified in Table 1. We are proposing to approve the emissions inventories because they contain comprehensive, accurate, and current inventories of actual emissions for all relevant sources in accordance with CAA sections 172(c)(3) and 182(a), and because CARB adopted the emissions inventories after providing for reasonable public notice and opportunity for a public hearing.

IV. 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);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not 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, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

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

Dated: September 29, 2021.

Deborah Jordan,
Acting Regional Administrator,
Region IX.

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