

Alexis Strauss, Acting Regional Administrator, EPA Region 9 signed the following notice of proposed rulemaking on September 23, 2016, and EPA is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this Internet version of this proposed rule, it is not the official version for purposes of public comment. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's FDsys website (<https://www.gpo.gov/fdsys/search/home.action>) and on Regulations.gov (<http://www.regulations.gov>) in Docket No. EPA-R09-OAR-2016-0494.

Billing Code: 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2016-0494; FRL–]

Findings of Failure to Attain the 1997 PM_{2.5} Standards; California; San Joaquin Valley

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to determine that the San Joaquin Valley nonattainment area failed to attain the 1997 annual and 24-hour fine particulate matter (PM_{2.5}) national ambient air quality standards by the December 31, 2015 “Serious” area attainment date. This proposed determination is based upon monitored air quality data from 2013 through 2015. If the EPA finalizes this determination as proposed, the State of California will be required to submit a revision to the California State Implementation Plan that, among other elements, provides for expeditious attainment of the 1997 PM_{2.5} standards and for a five percent annual reduction in the emissions of direct PM_{2.5} or a PM_{2.5} plan precursor pollutant.

DATES: Any comments must arrive by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R09-OAR-2016-0494 at <http://www.regulations.gov>, or via email to Rory Mays at mays.rory@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once

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submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, the EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (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: Rory Mays, Air Planning Office (AIR-2), EPA Region 9, (415) 972-3227, mays.rory@epa.gov.

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

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I. Background

A. PM_{2.5} NAAQS

Under section 109 of the Clean Air Act (CAA or “Act”), the EPA has established national ambient air quality standards (NAAQS or “standards”) 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.

On July 1, 1987 (52 FR 24634), the EPA replaced the original standard for particulate matter, measured as total suspended particulate matter (TSP) (*i.e.*, particles roughly 30 micrometers or less), with new standards that replaced TSP as the indicator for particulate matter with a new indicator that includes only those particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM₁₀).

On July 18, 1997 (62 FR 38652), the EPA revised the standards for particulate matter by establishing new standards for particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM_{2.5}). The EPA established primary and secondary annual and 24-

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hour standards for PM_{2.5}.¹ The annual primary and secondary standards were set at 15.0 micrograms per cubic meter (µg/m³), based on a 3-year average of annual mean PM_{2.5} concentrations, and the 24-hour primary and secondary standards were set at 65 µg/m³, based on the 3-year average of the 98th percentile of 24-hour PM_{2.5} concentrations at each monitoring site within an area. See 40 CFR 50.7. Collectively, we refer herein to the 1997 24-hour and annual PM_{2.5} NAAQS as the “1997 PM_{2.5} NAAQS” or “1997 PM_{2.5} standards.”² The EPA established these standards after considering substantial evidence from numerous health studies demonstrating that serious health effects are associated with exposures to PM_{2.5} concentrations above these levels.

Epidemiological studies have shown statistically significant correlations between elevated PM_{2.5} levels and premature mortality. Other important health effects associated with PM_{2.5} exposure include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), changes in lung function and increased respiratory symptoms. There is

¹ For a given air pollutant, “primary” NAAQS are those determined by the EPA as requisite to protect the public health, allowing an adequate margin of safety, and “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. See CAA section 109(b).

² On October 17, 2006 (71 FR 61144), the EPA revised the level of the 24-hour PM_{2.5} standards to 35 µg/m³, and on January 15, 2013 (78 FR 3086), the EPA revised the primary annual PM_{2.5} standard to a level of 12.0 µg/m³. We recently published a final rule revoking the 1997 primary annual PM_{2.5} NAAQS for areas designated (or redesignated) attainment for that standard and revising the regulations governing implementation of the PM_{2.5} standards. See 81 FR 58010 (August 24, 2016). However, because the San Joaquin Valley remains designated nonattainment for the 1997 annual primary PM_{2.5} standard, the 1997 primary annual PM_{2.5} standard will remain in effect in the San Joaquin Valley under the EPA’s recent PM_{2.5} implementation rule until such time as the area is redesignated to attainment for that standard. Thus, even though the EPA has lowered the 24-hour and annual PM_{2.5} standards, the original 1997 PM_{2.5} standards remain in effect in the San Joaquin Valley and represent the standards for which today’s proposed determination are made.

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also new evidence for more subtle indicators of cardiovascular health. Individuals particularly sensitive to PM_{2.5} exposure include older adults, people with heart and lung disease, and children.³

PM_{2.5} can be emitted directly into the atmosphere as a solid or liquid particle (primary PM_{2.5} or direct PM_{2.5}) or can be formed in the atmosphere as a result of various chemical reactions from precursor emissions of nitrogen oxides, sulfur oxides, volatile organic compounds, and ammonia (secondary PM_{2.5}).⁴

B. San Joaquin Valley Designations, Classifications, and Attainment Dates for 1997 PM_{2.5} NAAQS

Following promulgation of a new or revised NAAQS, the EPA is required under CAA section 107(d) to designate areas throughout the nation as attaining or not attaining the NAAQS. On January 5, 2005, the EPA published initial air quality designations for the 1997 annual and 24-hour PM_{2.5} NAAQS, using air quality monitoring data for the three-year periods of 2001–2003 and 2002–2004.⁵ These designations became effective April 5, 2005.⁶ The EPA designated the San Joaquin Valley area as nonattainment for both the 1997 annual PM_{2.5} standards and the 1997 24-hour PM_{2.5} standards.⁷

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

⁴ 80 FR 15340, 15342 (March 23, 2015).

⁵ 70 FR 944 (January 5, 2005).

⁶ *Id.*

⁷ 40 CFR 81.305. The 2001-2003 design values for the San Joaquin Valley were 21.8 µg/m³ for the annual standard and 82 µg/m³ for the 24-hour standard. *See* EPA design value workbook dated August 28, 2014, worksheets “Table 3a” and “Table 3b.”

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The San Joaquin Valley PM_{2.5} nonattainment area encompasses over 23,000 square miles and includes all or part of eight counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and the valley portion of Kern.⁸ The area is home to four million people and is the nation's leading agricultural region. Stretching over 250 miles from north to south and averaging 80 miles wide, it is partially enclosed by the Coast Mountain range to the west, the Tehachapi Mountains to the south, and the Sierra Nevada range to the east.

Under state law, the California Air Resources Board (CARB or "State") is the Governor's designee for adoption and submittal of the state implementation plan (SIP) and SIP revisions to the EPA in compliance with CAA requirements. CARB is also generally responsible under state law for the regulation of mobile emission sources. Local air pollution control districts are responsible for regulation of stationary emission sources. In the San Joaquin Valley, regional air quality plans are developed by the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD or "District") with input from CARB and typically rely on both mobile source control measures for which CARB is responsible and stationary source control measures for which the District is responsible. Once the District adopts a regional air quality plan, the plan is submitted to CARB for adoption as part of the California SIP and submittal to the EPA.

Between 2007 and 2011, California made six SIP submissions to address nonattainment area planning requirements for the 1997 PM_{2.5} NAAQS in the San Joaquin Valley.⁹ We refer to these submissions collectively as the "2008 PM_{2.5} Plan." On November 9, 2011, the EPA

⁸ For a precise description of the geographic boundaries of the San Joaquin Valley PM_{2.5} nonattainment area, *see* 40 CFR 81.305.

⁹ 76 FR 69896 at n. 2 (November 9, 2011).

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approved all elements of the 2008 PM_{2.5} Plan except for the contingency measures, which the EPA disapproved.¹⁰ As part of that action and pursuant to CAA section 172(a)(2)(A), the EPA granted California's request for an extension of the attainment date for the San Joaquin Valley area to April 5, 2015.¹¹

A 2013 court decision by the U.S. Court of Appeals for the D.C. Circuit ("D.C. Circuit") in *Natural Resources Defense Council v. EPA* concluded that the EPA erred in implementing the 1997 PM_{2.5} standards solely pursuant to the general implementation requirements of subpart 1, without also considering the requirements specific to PM₁₀ nonattainment areas in subpart 4, part D of title I of the CAA.¹² Consistent with the *NRDC* decision, on June 2, 2014, the EPA classified all areas designated nonattainment for the 1997 or the 2006 PM_{2.5} standards as "Moderate" nonattainment areas under subpart 4.¹³ Because this rulemaking did not affect any action that the EPA had previously taken under section 110(k) of the Act on a SIP for a PM_{2.5} nonattainment area, the April 5, 2015 attainment date that the EPA had approved for the San Joaquin Valley area in November 2011 remained in effect.¹⁴

On April 7, 2015, the EPA reclassified the San Joaquin Valley area as a "Serious" PM_{2.5} nonattainment area under subpart 4, based on the EPA's determination that the area could not

¹⁰ *Id.* at 69924.

¹¹ *Id.* Under CAA section 172(a)(2)(A), the attainment date for a nonattainment area is "the date by which attainment can be achieved as expeditiously as practicable, but no later than five years from the date such area was designated nonattainment," except that EPA may extend the attainment date as appropriate for a period no greater than ten years from the date of designation as nonattainment, considering the severity of nonattainment and the availability and feasibility of pollution control measures. CAA section 172(a)(2)(A).

¹² *Natural Resources Defense Council v. EPA*, 706 F.3d 428 (D.C. Cir. 2013) ("*NRDC*").

¹³ 79 FR 31566 (June 2, 2014). As part of this rulemaking, EPA established a December 31, 2014 deadline for states to submit attainment-related and nonattainment new source review SIP elements required for PM_{2.5} nonattainment areas pursuant to subpart 4. *Id.*

¹⁴ *Id.* at 31569.

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practicably attain the 1997 PM_{2.5} standards by the April 5, 2015 attainment date.¹⁵ This reclassification was based upon the EPA's evaluation of ambient air quality data from the 2003-2014 period, including the 2012-2014 design value, which indicated that it was not practicable for certain monitoring sites within the San Joaquin Valley area to show PM_{2.5} design values at or below the level of the 1997 PM_{2.5} NAAQS by April 5, 2015.¹⁶

As a consequence of reclassification as a Serious PM_{2.5} nonattainment area, the San Joaquin Valley area became subject to a new attainment date under CAA section 188(c)(2) and the requirement to submit a Serious area plan that satisfies the requirements of part D of title I of the Act, including the requirements of subpart 4, for the 1997 PM_{2.5} NAAQS.¹⁷ Under subpart 4, the attainment date for an area classified as Serious is as expeditiously as practicable, but no later than the end of the tenth calendar year following designation. As explained in the EPA's final reclassification action, the Serious area plan for the San Joaquin Valley must include provisions to assure that the best available control measures for the control of direct PM_{2.5} and PM_{2.5} precursors shall be implemented no later than 4 years after the area is reclassified (CAA section 189(b)(1)(B)), and a demonstration (including air quality modeling) that the plan provides for attainment as expeditiously as practicable but no later than December 31, 2015, which is the latest permissible attainment date under CAA section 188(c)(2).¹⁸

¹⁵ 80 FR 18528 (April 7, 2015).

¹⁶ *Id.* at 18529; *see also* proposed rule, 80 FR 1482 (January 12, 2015). Air quality data for 2012-2014 indicated that the highest monitors in the San Joaquin Valley area had design values of 19.7 µg/m³ for the annual standard and 71 µg/m³ for the 24-hour standard.

¹⁷ 80 FR 18258 at 18530-18532.

¹⁸ *Id.*

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Given the December 31, 2015 outermost attainment deadline for the San Joaquin Valley area under section 188(c)(2), the EPA noted its expectation that the State would adopt and submit a Serious area plan for the San Joaquin Valley well before the statutory SIP submission deadlines in CAA section 189(b)(2).¹⁹ The EPA also noted that, in light of the available ambient air quality data and the short amount of time available before the December 31, 2015 attainment date, California could choose to submit a request for an extension of the Serious area attainment date pursuant to CAA section 188(e) simultaneously with its submission of a Serious area plan for the area.²⁰

California submitted its 1997 PM_{2.5} Serious area plan for the San Joaquin Valley in two submittals dated June 25, 2015 and August 13, 2015, including a request under section 188(e) to extend the attainment date for the 1997 24-hour PM_{2.5} NAAQS by three years (to December 31, 2018) and to extend the attainment date for the 1997 annual PM_{2.5} NAAQS by five years (to December 31, 2020). The EPA proposed to approve most of the San Joaquin Valley 1997 PM_{2.5} Serious area plan, to conditionally approve the Plan's quantitative milestones, to disapprove the plan's contingency measures, and to grant the requested attainment date extensions.²¹ We received adverse comments on our proposal on several aspects of the plan and its control measures. Upon further evaluation of the plan and after consideration of the comments, the EPA

¹⁹ *Id.* at 18531.

²⁰ *Id.*

²¹ 81 FR 6936 (February 9, 2016).

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decided it could no longer support an action to extend the attainment date for the San Joaquin Valley Serious PM_{2.5} nonattainment area for the 1997 PM_{2.5} NAAQS.²²

Since the EPA has not approved the requested attainment date extensions, the applicable attainment date remains December 31, 2015 for the San Joaquin Valley with respect to the 1997 PM_{2.5} NAAQS. As discussed in section II of this proposed rule, the EPA must determine, based on air quality data as of the attainment date, whether an area attained the applicable NAAQS by its attainment date.

II. Proposed Determination and Consequences

A. Applicable Statutory and Regulatory Provisions

Sections 179(c)(1) and 188(b)(2) of the CAA require the EPA to determine whether a PM_{2.5} nonattainment area attained the applicable PM_{2.5} standards by the applicable attainment date, based on the area's air quality as of the attainment date.

A determination of whether an area's air quality meets the PM_{2.5} standards is generally based upon the most recent three years of complete, quality-assured data gathered at established State and Local Air Monitoring Stations (SLAMS) in a nonattainment area and entered into the EPA's Air Quality System (AQS) database. Data from ambient air monitors operated by state/local agencies in compliance with the EPA monitoring requirements must be submitted to AQS. Monitoring agencies annually certify that these data are accurate to the best of their

²² See U.S. EPA, Final rule, "Denial of Request for Extension of Attainment Date for 1997 PM_{2.5} NAAQS; California; San Joaquin Valley Serious Nonattainment Area," to be published in the same edition of the **Federal Register** as this proposed rule, and U.S. EPA Fact Sheet, "San Joaquin Valley Fine Particulate Matter," June 29, 2016.

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knowledge. Accordingly, the EPA relies primarily on data in AQS when determining the attainment status of areas. *See* 40 CFR 50.7; 40 CFR part 50, Appendix L; 40 CFR part 53; 40 CFR part 58, and 40 CFR part 58, Appendices A, C, D, and E. All data are reviewed to determine the area's air quality status in accordance with 40 CFR part 50, Appendix N.

Under EPA regulations in 40 CFR part 50, section 50.7 and in accordance with Appendix N, the 1997 annual PM_{2.5} standards are met when the design value is less than or equal to 15.0 µg/m³ (based on the rounding convention in 40 CFR part 50, Appendix N) at each eligible monitoring site within the area.²³ Data completeness requirements for a given year are met when at least 75 percent of the scheduled sampling days for each quarter have valid data.

Under EPA regulations in 40 CFR part 50, section 50.7 and in accordance with Appendix N, the 1997 24-hour PM_{2.5} standards are met when the design value is less than or equal to 65 µg/m³ (based on the rounding convention in 40 CFR part 50, Appendix N) at each eligible monitoring site within the area.²⁴ Data completeness requirements for a given year are met when at least 75 percent of the scheduled sampling days for each quarter have valid data.

B. Monitoring Network Considerations

Section 110(a)(2)(B)(i) of the CAA requires states to establish and operate air monitoring networks to compile data on ambient air quality for all criteria pollutants. Our monitoring requirements are specified by regulation in 40 CFR Part 58. These requirements are applicable to

²³ The annual PM_{2.5} standard design value is the 3-year average of annual mean concentration, and the 1997 annual PM_{2.5} NAAQS are met when the annual standard design value at each eligible monitoring site is less than or equal to 15.0 µg/m³.

²⁴ The 24-hour PM_{2.5} standard design value is the 3-year average of annual 98th percentile 24-hour average values recorded at each eligible monitoring site, and the 1997 24-hour PM_{2.5} NAAQS are met when the 24-hour standard design value at each such monitoring site is less than or equal to 65 µg/m³.

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state, and where delegated, local air monitoring agencies that operate criteria pollutant monitors.

Our regulations in 40 CFR part 58 establish specific requirements for operating air quality surveillance networks to measure ambient concentrations of PM_{2.5}, including requirements for measurement methods, network design, quality assurance procedures, and in the case of large urban areas, the minimum number of monitoring sites designated as SLAMS.

In section 4.7 of Appendix D to 40 CFR part 58, the EPA specifies minimum monitoring requirements for PM_{2.5} to operate at SLAMS. SLAMS produce data that are eligible for comparison with the NAAQS, and therefore, the monitor must be an approved federal reference method (FRM), federal equivalent method (FEM), or approved regional method (ARM). The minimum number of SLAMS required is described in section 4.7.1, and can be met by either filter-based or continuous FRMs or FEMs. The monitoring regulations also provide that each core-based statistical area must operate a minimum number of PM_{2.5} continuous monitors (section 4.7.2); however, this requirement can be met by either an FEM or a non-FEM continuous monitor, and the continuous monitors can be located with other SLAMS or at a different location. Consequently, the monitoring requirements for PM_{2.5} can be met with filter-based FRMs/FEMs, continuous FEMs, continuous non-FEMs, or a combination of monitors at each required SLAMS.

Under 40 CFR 58.10, states are required to submit Annual Network Plans for ambient air monitoring networks for approval by the EPA. Within the San Joaquin Valley, CARB and the District are the agencies responsible for assuring that the area meets air quality monitoring requirements. The District submits annual monitoring network plans to the EPA that describe the

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various monitoring sites operated by the District as well as those operated by CARB within the San Joaquin Valley. These plans discuss the status of the air monitoring network, as required under 40 CFR section 58.10. The most recent plan submitted by the District is the 2015 Air Monitoring Network Plan, dated August 28, 2015. The EPA regularly reviews these Annual Network Plans for compliance with the applicable reporting requirements in 40 CFR part 58. On December 28, 2015, the EPA approved those portions of the 2015 Air Monitoring Network Plan that pertain to the adequacy of the network for PM_{2.5} monitoring purposes.²⁵

During the 2013-2015 period, PM_{2.5} ambient concentration data that is eligible for use in determining whether an area has attained the PM_{2.5} NAAQS were collected at a total of 17 sites within the San Joaquin Valley: four sites in Fresno County; three sites in Kern County; two sites each in Kings, Merced, San Joaquin, and Stanislaus counties; and one site each in Madera and Tulare counties. The District operates 10 of these sites while CARB operates seven of the sites. Fourteen of the sites are designated SLAMS for PM_{2.5}. Three of the sites are designated as special purpose monitors (*i.e.*, the Merced (Coffee Street), Tranquility, and Hanford sites), but the PM_{2.5} data collected there are eligible for use in determining PM_{2.5} NAAQS compliance due to the duration of monitoring at the site and the use of FRM or FEM monitors consistent with EPA quality assurance requirements and siting criteria.²⁶ The primary monitors are FRMs at 11 of the 17 sites and beta attenuation monitor FEMs at six of the 17 sites.

²⁵ Letter dated December 28, 2015, from Meredith Kurpius, Manager, EPA Region 9, Air Quality Analysis Office, to Sheraz Gill, Director of Strategies and Incentives, SJVUAPCD.

²⁶ There are a number of other PM_{2.5} monitoring sites within the valley, including other sites operated by the District, the National Park Service, and certain Indian tribes, but the data collected from these sites are non-regulatory and not eligible for use in determining whether the San Joaquin Valley has attained the PM_{2.5} NAAQS.

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Based on our review of the PM_{2.5} monitoring network as summarized above, we find that monitoring network in the San Joaquin Valley is adequate for the purpose of collecting ambient PM_{2.5} concentration data for use in determining whether the San Joaquin Valley attained the 1997 PM_{2.5} NAAQS by the December 31, 2015 attainment date.

C. Data Considerations and Proposed Determination

Under 40 CFR 58.15, monitoring agencies must certify, on an annual basis, data collected at all SLAMS and at all FRM, FEM, and ARM SPM stations that meet EPA quality assurance requirements. In doing so, monitoring agencies must certify that the previous year of ambient concentration and quality assurance data are completely submitted to AQS and that the ambient concentration data are accurate to the best of her or his knowledge. CARB annually certifies that the data the agency submits to AQS are quality assured, including data collected by CARB at monitoring sites in the San Joaquin Valley.²⁷ SJVUAPCD does the same for data submitted to AQS from monitoring sites operated by the District.²⁸

As noted above, CAA sections 179(c)(1) and 188(b)(2) require the EPA to determine whether a PM_{2.5} nonattainment area attained the applicable PM_{2.5} standards by the applicable attainment date, based on the area's air quality "as of the attainment date." For the San Joaquin Valley, for reasons discussed above, the applicable attainment date is December 31, 2015 with respect to the 1997 PM_{2.5} NAAQS. Because determinations of PM_{2.5} NAAQS compliance, in

²⁷ See, e.g., letter from Ravi Ramalingam, Chief, Consumer Products and Air Quality Assessment Branch, CARB, to Elizabeth Adams, Acting Director, Air Division, EPA Region 9, certifying calendar year 2015 ambient air quality data and quality assurance data, dated May 10, 2016.

²⁸ See, e.g., letter from Jon Klassen, Program Manager, SJVUAPCD, letter to Deborah Jordan, Director, Air Division, EPA Region 9, certifying calendar year 2015 ambient air quality data and quality assurance data, dated May 9, 2016.

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accordance with 40 CFR part 50, Appendix N, are based on three calendar years of data, to determine the San Joaquin Valley's air quality as of December 31, 2015, we must review the data collected during the three-year period immediately preceding December 31, 2015, *i.e.*, January 1, 2013 – December 31, 2015.

Thus, we verified that the data for the 2013-2015 period have been certified by the relevant monitoring agencies, and then we reviewed the data for completeness. We note above the most recent annual data certifications from CARB and the District. With respect to completeness, we determined that the data collected by CARB and the District meet the quarterly completeness criterion for all 12 quarters of the three-year period at most of the PM_{2.5} monitoring sites in the San Joaquin Valley.

More specifically, among the 17 PM_{2.5} monitoring sites from which regulatory data are available, the data from four of the sites did not meet the 75% completeness criterion (for each quarter); however, the data from all but one site (Bakersfield – Golden State Highway) are sufficient nonetheless to produce a valid design value for either the annual PM_{2.5} NAAQS or the 24-hour PM_{2.5} NAAQS pursuant to the rules governing design value validity in 40 CFR part 50, Appendix N, sections 4.1 and 4.2. We note that monitors with incomplete data in one or more quarters may still produce valid design values if the conditions for applying one of the EPA's data substitution tests are met.²⁹

²⁹ See 40 CFR part 50, Appendix N, section 4.1(b) for the annual PM_{2.5} NAAQS and section 4.2(b) for the 24-hour PM_{2.5} NAAQS. Each year the EPA produces a workbook identifying PM_{2.5} monitors with valid design values taking into account the data substitution tests set forth in 40 CFR part 50, Appendix N, section 4 where appropriate. The workbook design values reflect the concentration data input to AQS, but the design values calculated therein differ for some monitors from the design values calculated by AQS because at this time only the workbook design values accurately accounts for the two data substitution tests set forth in 40 CFR part 50, Appendix N, section 4.0.

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Table 1 and Table 2 show the annual and 24-hour PM_{2.5} design values, respectively, at each of the 17 monitoring sites within the San Joaquin Valley nonattainment area for the relevant three-year period (2013-2015). The tables show that the annual PM_{2.5} design values for the 2013-2015 period are greater than 15.0 µg/m³ at eight of the sites and that the 24-hour PM_{2.5} design values are greater than 65 µg/m³ at four of the sites.

Table 1 - 2013-2015 Annual PM_{2.5} Design Values for the San Joaquin Valley Nonattainment Area					
General Location	Site (AQS ID)	Annual Mean (µg/m³)			2013-2015 Annual Design Values (µg/m³)
		2013	2014	2015	
<i>FRESNO COUNTY:</i>					
Fresno - Pacific	06-019-5025	15.9	13.8	14.1	14.6
Fresno - Garland	06-019-0011	16.8	15.1	14.4	15.4
Clovis	06-019-5001	15.9	14.8	15.0	15.2
Tranquility ^a	06-019-2009	8.3	Inc	10.0	8.7
<i>KERN COUNTY:</i>					
Bakersfield – Planz Road	06-029-0016	22.8	21.6	17.9	20.8
Bakersfield – California Ave.	06-029-0014	20.0	18.6	16.3	18.3
Bakersfield – Golden State Highway	06-029-0010	Inc	Inc	16.7	Inv
<i>KINGS COUNTY:</i>					
Corcoran ^{a, b}	06-031-0004	15.6	15.4	Inc	22.2
Hanford	06-031-1004	18.2	17.5	16.6	17.4
<i>MADERA COUNTY:</i>					
Madera – Avenue 14	06-039-2010	17.8	14.0	13.8	15.2
<i>MERCED COUNTY:</i>					
Merced – M Street	06-047-2510	13.5	11.2	12.6	12.5
Merced – Coffee	06-047-0003	13.3	10.8	12.8	12.3
<i>SAN JOAQUIN COUNTY:</i>					
Stockton	06-077-1002	17.7	12.1	12.8	14.2

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Table 1 - 2013-2015 Annual PM_{2.5} Design Values for the San Joaquin Valley Nonattainment Area					
General Location	Site (AQS ID)	Annual Mean (µg/m³)			2013-2015 Annual Design Values (µg/m³)
		2013	2014	2015	
Manteca	06-077-2010	11.7	9.8	12.6	11.4
STANISLAUS COUNTY:					
Modesto	06-099-0005	14.5	11.4	Inc	Inv
Turlock	06-099-0006	15.1	12.3	14.4	13.9
TULARE COUNTY:					
Visalia	06-107-2002	18.9	17.9	16.1	17.6
Notes: Inc = Incomplete data. Inv = Invalid design value due to incomplete data. Design values shown in bold type do not meet the applicable NAAQS.					
Source: EPA, AQS Design Value Report, Report Request ID: 1463864, July 15, 2016, except as otherwise noted.					
^a Source: EPA, design value workbook dated July 29, 2016, worksheet “Table 5. PM _{2.5} Site Listing, 2013-2015,” column S.					
^b The 2015 design value site (Corcoran-Patterson) is based on concentration data from January 1, 2013 to February 6, 2015. Data from February 7, 2015 to December 31, 2015 are not available due to a fire that destroyed the site. Based on design value calculation methodologies described in 40 CFR part 50, Appendix N, section 4.1(b), the annual design value for Corcoran-Patterson is considered valid despite the missing 2015 data. The second highest 2013-2015 concentration (annual PM _{2.5} design value of 20.8 µg/m ³) at Bakersfield-Planz includes data measured for three years (January 1, 2013 - December 31, 2015).					

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Table 2 - 2013-2015 24-Hour PM_{2.5} Design Values for the San Joaquin Valley Nonattainment Area					
General Location	Site (AQS ID)	98th Percentile (µg/m³)			2013-2015 24-Hour Design Values (µg/m³)
		2013	2014	2015	
<i>FRESNO COUNTY:</i>					
Fresno - Pacific	06-019-5025	71.6	61.8	42.0	58
Fresno - Garland	06-019-0011	63.8	66.7	52.0	61
Clovis	06-019-5001	56.2	64.5	45.7	55
Tranquility ^a	06-019-2009	35.7	Inc	35.8	34
<i>KERN COUNTY:</i>					
Bakersfield – Planz Road	06-029-0016	96.7	76.7	56.5	77
Bakersfield – California Ave.	06-029-0014	71.8	79.9	57.2	70
Bakersfield – Golden State Highway ^a	06-029-0010	Inc	107.2	51.5	Inv
<i>KINGS COUNTY:</i>					
Corcoran ^b	06-031-0004	66.0	71.0	99.2	79
Hanford	06-031-1004	67.6	81.9	51.4	67
<i>MADERA COUNTY:</i>					
Madera – Avenue 14	06-039-2010	54.6	56.0	43.7	51
<i>MERCED COUNTY:</i>					
Merced – M Street	06-047-2510	67.3	45.9	39.0	51
Merced – Coffee	06-047-0003	42.3	43.8	40.3	42
<i>SAN JOAQUIN COUNTY:</i>					
Manteca	06-077-2010	40.2	40.0	42.7	41
Stockton	06-077-1002	56.3	44.5	39.1	47
<i>STANISLAUS COUNTY:</i>					
Modesto	06-099-0005	56.4	49.5	30.8	46
Turlock	06-099-0006	55.4	51.2	47.3	51
<i>TULARE COUNTY:</i>					
Visalia	06-107-2002	62.5	75.4	45.8	61
Notes: Inc = Incomplete data. Inv = Invalid design value due to incomplete data. Design values shown in bold type do not meet the applicable NAAQS.					

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Table 2 - 2013-2015 24-Hour PM_{2.5} Design Values for the San Joaquin Valley Nonattainment Area					
General Location	Site (AQS ID)	98th Percentile (µg/m³)			2013-2015 24-Hour Design Values (µg/m³)
		2013	2014	2015	
Source: EPA, AQS Design Value Report, Report Request ID: 1463864, July 15, 2016, except as otherwise noted.					
^a Source: EPA, design value workbook dated July 29, 2016, worksheet “Table 5. PM _{2.5} Site Listing, 2013-2015,” column Z.					
^b The 2015 design value site (Corcoran-Patterson) is based on concentration data from January 1, 2013 to February 6, 2015. Data from February 7, 2015 to December 31, 2015 are not available due to a fire that destroyed the site. Based on design value calculation methodologies described in 40 CFR part 50, Appendix N, section 4.2(b), the 24-hour design value for Corcoran-Patterson is considered valid despite the missing 2015 data. The second highest 2013-2015 concentration (24-hour PM _{2.5} design value of 77 µg/m ³) at Bakersfield-Planz includes data measured for three years (January 1, 2013 - December 31, 2015).					

The data in Tables 1 and 2 show that a number of sites in central and southern San Joaquin Valley failed to attain the 1997 annual PM_{2.5} NAAQS by December 31, 2015 and that the geographic extent of failure to attain the 1997 24-hour PM_{2.5} NAAQS was more limited than for the annual standard in that only sites in southwestern San Joaquin Valley failed to attain the 24-hour standard. The 2015 annual design value site, *i.e.*, the site with the highest design value based on 2013-2015 data, is the Corcoran site with a 2015 annual PM_{2.5} design value of 22.2 µg/m³. With respect to the 24-hour average, the 2015 design value site is the Corcoran site with a 24-hour PM_{2.5} design value of 79 µg/m³.

For an area to attain the 1997 PM_{2.5} NAAQS by December 31, 2015, the 2015 design

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value (reflecting data from 2013-2015) at each eligible monitoring site must be equal to or less than $15.0 \mu\text{g}/\text{m}^3$ for the annual standard and $65 \mu\text{g}/\text{m}^3$ for the 24-hour standard. Tables 1 and 2 show that the 2015 design values at a number of sites in the San Joaquin Valley are greater than those values. Therefore, based on quality-assured and certified data for 2013-2015, we are proposing to determine that the San Joaquin Valley failed to attain the 1997 annual and 24-hour $\text{PM}_{2.5}$ standards by the December 31, 2015 attainment date.

Lastly, we note that, under our regulations at 40 CFR 50.14, a monitoring agency may request the EPA to exclude data showing exceedances or violations of the standard that are directly due to an exceptional event from use in determinations by demonstrating that such event caused a specific air pollution concentration at a particular air quality monitoring location. A monitoring agency notifies the EPA of its intent to request exclusion of concentrations by placing a “flag” in the appropriate field for the data of concern in AQS.

For $\text{PM}_{2.5}$ ambient data collected from 2013-2015, the District “flagged” one 24-hour concentration at the Bakersfield (Planz Road) site and two 24-hour concentrations at the Bakersfield (California Avenue) site due to high winds. The District also flagged twenty-four 24-hour concentrations at each of the Madera and Merced (Coffee Avenue) sites due to wildfire.³⁰

The State has not requested concurrence on the flagged data, and thus the data are not excluded from the set of data used to determine whether the standard was attained. However, even if all of the flagged data were to be excluded, *i.e.*, even if the EPA had concurred on the data as qualifying as exceptional events, the design values reported in Tables 1 and 2, though

³⁰ EPA, AQS Raw Data Qualifier Report, Report Request ED: 1464417, July 18, 2016.

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slightly lower at certain sites, would remain well above the NAAQS.³¹

For instance, the 2015 annual PM_{2.5} design value at the Bakersfield (Planz Road) monitoring site would be 20.4 µg/m³ instead of 20.8 µg/m³ if all of the flagged data were excluded. Thus, it would still fail to attain the applicable standard of 15.0 µg/m³. Similarly, the 2015 24-hour PM_{2.5} design value at the same site would be 72 µg/m³ instead of 77 µg/m³ if all of the flagged data were excluded, thus also failing to attain the applicable standard of 65 µg/m³. Furthermore, several additional sites, for which the District has not flagged exceptional events, exceed the 1997 PM_{2.5} NAAQS based on 2015 annual PM_{2.5} design values (*i.e.*, Fresno-Garland, Clovis, Corcoran, Hanford, and Visalia) and 2015 24-hour design values (*i.e.*, Corcoran and Hanford).

D. Consequences for Serious PM_{2.5} Nonattainment Area Failing to Attain Standards by Attainment Date

The consequences for a Serious PM_{2.5} nonattainment area for failing to attain the standards by the applicable attainment date are set forth in CAA sections 179(d) and 189(d). Under section 179(d), a state must submit a SIP revision for the area meeting the requirements of CAA section 110 and 172, the latter of which requires, among other elements, a demonstration of attainment and reasonable further progress, and contingency measures. CAA section 189(d) requires that the SIP revision must provide for attainment of the standards and, from the date of the SIP submittal until attainment, for an annual reduction in the emissions of PM_{2.5} or a PM_{2.5} plan precursor pollutant within the area of not less than five percent of the amount of such

³¹ EPA, AQS Design Value Report, Report Request ED: 1463865, July 15, 2016.

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emissions as reported in the most recent inventory prepared for such area.³² The requirement for a new attainment demonstration under CAA section 189(d) also triggers the requirement for the SIP revision for quantitative milestones under section 189(c) that are to be achieved every three years until redesignation to attainment.

The new attainment date is set by CAA section 179(d)(3), which relies upon section 172(a)(2) to establish a new attainment date but with a different starting point than provided in section 172(a)(2). Under section 179(d)(3), the new attainment date is the date by which attainment can be achieved as expeditiously as practicable, but no later than five years from the date of the final determination of failure to attain, except that the EPA may extend the attainment date for a period no greater than 10 years from the final determination, considering the severity of nonattainment and the availability and feasibility of pollution control measures. Lastly, section 179(d) requires that the state submit the required SIP revision within 12 months after the applicable attainment date. In this case, if the EPA finalizes the proposed rule, then the State of California will be required to submit a SIP revision that complies with sections 179(d) and 189(d) within 12 months of December 31, 2015, *i.e.*, by December 31, 2016.

III. Proposed Action and Request for Public Comment

Under CAA sections 179(c)(1) and 188(b)(2), the EPA proposes to determine that the San Joaquin Valley “Serious” PM_{2.5} nonattainment area has failed to attain the 1997 annual and 24-hour PM_{2.5} standards by the applicable attainment date of December 31, 2015. If finalized,

³² 81 FR 58010 at 58100, 58158 (August 24, 2016). The EPA defines PM_{2.5} plan precursor as those PM_{2.5} precursors required to be regulated in the applicable attainment plan and/or nonattainment new source review program. 81 FR 58010 at 58152.

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the State of California will be required under CAA sections 179(d) and 189(d) to submit a revision to the SIP for the San Joaquin Valley that, among other elements, demonstrates expeditious attainment of the standards within the time period provided under CAA section 179(d) and that provides for annual reduction in the emissions of PM_{2.5} or a PM_{2.5} plan precursor pollutant within the area of not less than five percent until attainment. The SIP revision required under CAA sections 179(d) and 189(d) would be due for submittal to the EPA no later than December 31, 2016.

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

IV. Statutory and Executive Order Reviews

This proposed action in and of itself establishes no new requirements; it merely documents that air quality in the San Joaquin Valley did not meet the 1997 PM_{2.5} standards by the CAA deadline. For that reason, this proposed action:

- Is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- 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

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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 CAA; 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, this proposed action does not have Tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP obligations discussed herein do not apply to Indian Tribes and thus this proposed action will not impose substantial direct costs on Tribal governments or preempt Tribal law. Nonetheless, the EPA has notified the Tribes within the San Joaquin Valley PM_{2.5} nonattainment area of the proposed action.

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List of Subjects in 40 CFR Part 52

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

September 23, 2016.
Dated:

//signed//
Alexis Strauss,
Acting Regional Administrator,
Region IX.