

San Joaquin Valley State Implementation Plan Revision for the 15 $\mu\text{g}/\text{m}^3$ Annual PM2.5 Standard

Resolution 21-21

September 23, 2021

Agenda Item No.: 21-9-3

Whereas, sections 39600 and 39601 of the Health and Safety Code (H&SC) authorize the California Air Resources Board (CARB or Board) to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

Whereas, the Legislature in H&SC section 39602 has designated CARB as the air pollution control agency for all purposes set forth in federal law;

Whereas, CARB is responsible for preparing the State Implementation Plan (SIP) for attaining and maintaining the National Ambient Air Quality Standards (NAAQS or standards) as required by the federal Clean Air Act (the Act) (42 U.S.C. section 7401 et seq.), and to this end is directed by H&SC section 39602 to coordinate the activities of all local and regional air pollution control and air quality management districts (districts) necessary to comply with the Act;

Whereas, section 39602 of the H&SC also provides that the SIP shall include only those provisions necessary to meet the requirements of the Act;

Whereas, section 41650 of the H&SC requires CARB to approve the nonattainment plan adopted by a district as part of the SIP unless the Board finds, after a public hearing, that the plan does not meet the requirements of the Act;

Whereas, sections 39515 and 39516 of the H&SC provide that any power, duty, purpose, function or jurisdiction of the Board may be delegated to the CARB Executive Officer as the Board deems appropriate;

Whereas, the districts have primary responsibility for controlling air pollution from non-vehicular sources and for adopting control measures, rules, and regulations to attain the standards within their boundaries, under sections 39002, 40000, 40001, 40701, 40702, and 41650 of the H&SC;

Whereas, CARB has responsibility for ensuring that the districts meet their responsibilities under the Act, under sections 39002, 39500, 39602, and 41650 of the H&SC;

Whereas, the San Joaquin Valley Air Basin (San Joaquin Valley) includes Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare, and western Kern Counties;

Whereas, the San Joaquin Valley Air Pollution Control District (District) was established under section 40002 of the H&SC as the air pollution control district responsible for carrying out these responsibilities in the San Joaquin Valley;

Whereas, in 1997, the United States Environmental Protection Agency (U.S. EPA) promulgated an annual NAAQS for fine particulate matter (PM_{2.5}) at a level of 15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$);

Whereas, on April 5, 2005, U.S. EPA designated the San Joaquin Valley as nonattainment for the 15 $\mu\text{g}/\text{m}^3$ annual standard;

Whereas, effective July 2, 2014, U.S. EPA classified the San Joaquin Valley as a Moderate nonattainment area for the 15 $\mu\text{g}/\text{m}^3$ annual standard, with an attainment date of April 5, 2015;

Whereas, effective May 7, 2015, U.S. EPA classified the San Joaquin Valley as Serious nonattainment for the 15 $\mu\text{g}/\text{m}^3$ annual standard with an attainment date of December 31, 2015;

Whereas, the District adopted the 2015 PM_{2.5} Plan for the 1997 PM_{2.5} Standard (2015 PM_{2.5} Plan) in April 2015;

Whereas, the 2015 PM_{2.5} Plan included a request for an attainment date extension to 2020;

Whereas, U.S. EPA proposed to approve portions of the 2015 PM_{2.5} Plan and the attainment date extension to 2020 on February 9, 2016, but did not finalize the approval action;

Whereas, effective December 23, 2016, U.S. EPA found that the San Joaquin Valley failed to attain the 1997 standard by the December 31, 2015, attainment deadline;

Whereas, in August 2016, U.S. EPA finalized the PM_{2.5} SIP Implementation Rule (Rule) which established the framework and requirements states must meet in developing PM_{2.5} SIPs based on provisions of Subpart 4 of the Act;

Whereas, the District developed the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards (2018 PM_{2.5} Plan) to meet the Serious PM_{2.5} nonattainment area planning requirements for the 15 $\mu\text{g}/\text{m}^3$ annual standard, among other PM_{2.5} standards, consistent with the Act and the Rule;

Whereas, the 2018 PM_{2.5} Plan includes an attainment demonstration that shows attainment of the 15 µg/m³ annual standard as expeditiously as practicable by December 31, 2020;

Whereas, annual PM_{2.5} levels have been declining across the San Joaquin Valley, and in 2019 were below the 15 µg/m³ standard at all of the San Joaquin Valley's air monitoring sites;

Whereas, the almost year-round occurrence of wildfires in 2020 contributed to elevated PM_{2.5} levels that impacted calculation of the design values used for determining attainment of the annual standard (the average of 2018-2020 monitoring data);

Whereas, after excluding data impacted by wildfire exceptional events, only one monitoring site, Bakersfield-Planz, had a PM_{2.5} design value (three-year average, 2018-2020) which exceeded the 15 µg/m³ annual standard in 2020, with a design value of 15.4 µg/m³;

Whereas, Bakersfield-Planz exceeded the 15 µg/m³ annual standard in 2020, the 2020 attainment date for the 15 µg/m³ annual standard is no longer approvable by U.S. EPA;

Whereas, on July 22, 2021, U.S. EPA proposed to disapprove portions of the 2018 PM_{2.5} Plan that pertain to attainment of the 15 µg/m³ annual standard in 2020 (86 FR 38652);

Whereas, U.S. EPA proposed to disapprove the following SIP elements related to the attainment demonstration for the 15 µg/m³ annual standard: the precursor demonstration, Best Available Control Measure (BACM)/Best Available Control Technology (BACT) demonstration, five percent annual emissions reductions demonstration, attainment demonstration, Reasonable Further Progress (RFP) demonstration, quantitative milestone demonstration, motor vehicle emissions budgets, and contingency measure;

Whereas, U.S. EPA's disapproval requires the District and CARB to revise the SIP and submit to U.S. EPA an approvable SIP revision demonstrating attainment of the 15 µg/m³ annual standard;

Whereas, CARB and the District worked together to develop the Proposed Attainment Plan Revision for the 1997 Annual PM_{2.5} Standard (15 µg/m³ SIP Revision);

Whereas, the 15 µg/m³ SIP Revision amends the 2018 PM_{2.5} Plan to update the SIP elements associated with the disapproved attainment demonstration, and demonstrates that the San Joaquin Valley will meet the standard in 2023, including at the high site of Bakersfield-Planz with a 2023 design value of 14.7 µg/m³;

Whereas, the 15 $\mu\text{g}/\text{m}^3$ SIP Revision addresses the deficiencies identified in U.S. EPA's proposed disapproval, except regarding the precursor demonstration deficiency, which is addressed in the CARB Staff Report: Proposed SIP Revision for the 15 $\mu\text{g}/\text{m}^3$ Annual PM2.5 Standard for the San Joaquin Valley (CARB Staff Report) and contingency measures, which the District will act on separately and at a later date;

Whereas, staff prepared the CARB Staff Report and released it to the public on August 13, 2021;

Whereas, the 15 $\mu\text{g}/\text{m}^3$ SIP Revision includes a five percent annual emissions reductions demonstration, attainment modeling demonstration, motor vehicle emission budgets, reasonable further progress, and quantitative milestones;

Whereas, the CARB Staff Report includes a PM2.5 precursor analysis demonstrating that ammonia, oxides of sulfur (SOx), and reactive organic gases (ROG) are not considered significant precursors impacting the 15 $\mu\text{g}/\text{m}^3$ PM2.5 standard;

Whereas, the 15 $\mu\text{g}/\text{m}^3$ SIP Revision and CARB Staff Report satisfy statutory requirements for an Act §189(d) plan for a Serious nonattainment area SIP submission;

Whereas, the San Joaquin Valley is able to demonstrate attainment in 2023 with reductions in emissions of oxides of nitrogen (NOx) and PM2.5 from ongoing implementation of CARB and the District's existing control strategies, newly adopted CARB and District measures from the 2018 PM2.5 Plan which provide near-term reductions, and a new 2023 CARB aggregate emission reduction commitment made for the 15 $\mu\text{g}/\text{m}^3$ SIP Revision from measures in the 2018 PM2.5 Plan which have not yet been considered by CARB;

Whereas, ongoing implementation of CARB and the District's existing control programs will achieve the vast majority of emissions reductions needed for attainment of the 15 $\mu\text{g}/\text{m}^3$ PM2.5 standard in the San Joaquin Valley in 2023;

Whereas, the attainment demonstration in the 15 $\mu\text{g}/\text{m}^3$ SIP Revision includes new emissions reductions in 2023 from CARB's adopted Amended Warranty Requirements for Heavy-Duty Vehicles and Lower Opacity Limits for Heavy-Duty Vehicles regulations and the District's adopted 2018 PM2.5 Plan Residential Wood Burning Strategy;

Whereas, these adopted measures provide additional substantial emissions reductions for the San Joaquin Valley in 2023 beyond the existing control strategy;

Whereas, to attain the 15 $\mu\text{g}/\text{m}^3$ annual standard in 2023, additional emissions reductions are needed beyond those achieved from the adopted measures described above;

Whereas, the attainment demonstration in the 15 $\mu\text{g}/\text{m}^3$ SIP Revision relies on a new 2023 CARB 3.0 tpd of NOx and 0.04 tpd of PM2.5 aggregate emission reduction

commitment (CARB 2023 commitment) due to CARB adoption of the Heavy-Duty Inspection and Maintenance Program regulation;

Whereas, the CARB 2023 commitment, in conjunction with the existing control program and newly adopted measures described above, identifies all of the reductions required from mobile sources for the San Joaquin Valley's PM_{2.5} attainment needs for the 15 µg/m³ annual standard;

Whereas, emissions reductions from the adopted Accelerated Turnover of Agricultural Equipment Incentive Measure, while not included in the attainment demonstration for the 15 µg/m³ SIP Revision, provide essential emission reductions to improve PM_{2.5} air quality in the San Joaquin Valley in the near term;

Whereas, emissions reductions from the adopted phase-out of open burning of agricultural material, while not included in the attainment demonstration for the 15 µg/m³ SIP Revision or in the 2018 PM_{2.5} Plan, will improve PM_{2.5} levels and exposure to near-source PM_{2.5} pollution for communities in the San Joaquin Valley in the near term;

Whereas, the District adopted the 15 µg/m³ SIP Revision on August 19, 2021, after providing a 30-day public review;

Whereas, in the 2018 PM_{2.5} Plan (Appendix G: Precursor Demonstration), CARB notes that a precursor sensitivity analysis was conducted for the 2024 attainment year of the 35 µg/m³ 24-hour PM_{2.5} standard but not for the 2025 attainment year of the 12 µg/m³ annual PM_{2.5} standard because, due to the close proximity of the attainment years for the two standards, precursor sensitivities in 2025 are assumed to be very similar to those modeled in 2024;

Whereas, the CARB Staff Report indicates that CARB's determination in the 2018 PM_{2.5} Plan—that emissions of ammonia, SO_x, and ROG do not contribute significantly to PM_{2.5} levels that exceed the standards in the area—remains the same in the 15 µg/m³ SIP Revision, and CARB continues to exclude ammonia, SO_x, and ROG from control requirements in the SIP;

Whereas, the CARB Staff Report notes that, based on the scientific analysis available, CARB staff's conclusion continues to be that focusing on NO_x emission reductions is key to improving the health of San Joaquin Valley residents in 2023;

Whereas, federal law set forth in section 110(l) of the Act and Title 40, Code of Federal Regulations (CFR), section 51.102, requires that one or more public hearings, preceded by at least 30 days of notice and opportunity for public review, must be conducted before adopting and submitting any SIP revision to U.S. EPA;

Whereas, the CARB Staff Report and the District's 15 µg/m³ SIP Revision were made available for public review at least 30 days prior to the public hearing;

Whereas, CARB's regulatory program that involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA; California Code of Regulations, title 14, section 15251(d)), and CARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60007);

Whereas, CARB has determined that the 15 $\mu\text{g}/\text{m}^3$ SIP Revision is not a project under CEQA, or otherwise exempt from CEQA under California Code of Regulations, title 14, sections 15061(b)(3) ("common sense" exemption) and 15308 ("Class 8" exemption: Actions Taken by Regulatory Agencies for Protection of the Environment) because the record evidence shows with certainty that there is no possibility that the proposed activity may result in a significant adverse impact on the environment and because the record evidence shows that the plan will enhance the environment by better protecting the public from health impacts associated with exposure to NO_x and PM_{2.5}, as described in the "Environmental Analysis" section of the Staff Report;

Whereas, the Board finds that:

The 15 $\mu\text{g}/\text{m}^3$ SIP Revision addresses the deficiencies identified in U.S. EPA's proposed disapproval with the exception of the precursor demonstration, which is addressed in the CARB Staff Report, and contingency measures, which the District will act on separately and at a later date;

The 15 $\mu\text{g}/\text{m}^3$ SIP Revision along with the CARB Staff Report meet the requirements of the Act;

The 15 $\mu\text{g}/\text{m}^3$ SIP Revision demonstrates that the San Joaquin Valley will meet the 15 $\mu\text{g}/\text{m}^3$ annual PM_{2.5} standard in 2023;

The 15 $\mu\text{g}/\text{m}^3$ SIP Revision and the CARB Staff Report are consistent with CARB's environmental justice policies and do not disproportionately impact people of any race, culture, or income; and

The 15 $\mu\text{g}/\text{m}^3$ SIP Revision is not a project under CEQA, or otherwise exempt from CEQA under California Code of Regulations, title 14, sections 15061(b)(3) ("common sense" exemption) and 15308 ("Class 8" exemption) because the record evidence shows with certainty that there is no possibility that the proposed activity may result in a significant adverse impact on the environment and because the record evidence shows that the plan will enhance the environment by better protecting the public from health impacts associated with exposure to NO_x and PM_{2.5}.

Now, therefore, be it resolved that the Board hereby approves the 15 $\mu\text{g}/\text{m}^3$ SIP Revision and the CARB Staff Report, including the CARB aggregate emissions reduction commitment for the San Joaquin Valley in 2023 and the precursor demonstration.

Be it further resolved that the Board hereby directs the Executive Officer to submit the 15 $\mu\text{g}/\text{m}^3$ SIP Revision and CARB Staff Report to U.S. EPA for inclusion in the California SIP, to be effective, for purposes of federal law, upon approval by U.S. EPA.

Be it further resolved that the Board directs the Executive Officer to work with the District and U.S. EPA to take appropriate action to resolve any completeness or approvability issues that may arise regarding the SIP submission.

Be it further resolved that the Board authorizes the Executive Officer to include in the SIP submittal any technical corrections, clarifications, or additions that may be necessary to secure U.S. EPA approval.

Be it further resolved that the Board certifies under 40 C.F.R. section 51.102 that the CARB Staff Report was adopted after notice and public hearing as required by 40 C.F.R. section 51.102.

Be it further resolved that the Board directs the Executive Officer to complete contingency measure planning in no less than a year.

I hereby certify that the above is a true and correct copy of Resolution 21-21 as adopted by the California Air Resources Board.



Katie Estabrook, Board Clerk