

State of California  
AIR RESOURCES BOARD

**SAN JOAQUIN VALLEY PM2.5 STATE IMPLEMENTATION PLAN**

Resolution 13-2

January 24, 2013

Agenda Item No.: 13-1-1

WHEREAS, the Legislature in Health and Safety Code section 39602 has designated the State Air Resources Board (ARB or Board) as the air pollution control agency for all purposes set forth in federal law;

WHEREAS, ARB is responsible for preparing the State Implementation Plan (SIP) for attaining and maintaining the National Ambient Air Quality Standards (NAAQS) 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 Health and Safety Code 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 41650 of the Health and Safety Code requires ARB 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, ARB has responsibility for ensuring that the districts meet their responsibilities under the Act pursuant to sections 39002, 39500, 39602, and 41650 of the Health and Safety Code;

WHEREAS, ARB is authorized by section 39600 of the Health and Safety Code to do such acts as may be necessary for the proper execution of its powers and duties;

WHEREAS, sections 39515 and 39516 of the Health and Safety Code provide that any duty may be delegated to the Board's Executive Officer as the Board deems appropriate;

WHEREAS, the districts have primary responsibility for controlling air pollution from nonvehicular sources and for adopting control measures, rules, and regulations to attain the NAAQS within their boundaries pursuant to sections 39002, 40000, 40001, 40701, 40702, and 41650 of the Health and Safety Code;

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

WHEREAS, in July 1997, the United States Environmental Protection Agency (U.S. EPA) promulgated 24-hour and annual NAAQS for fine particulate matter (PM<sub>2.5</sub>) of 65 ug/m<sup>3</sup> and 15 ug/m<sup>3</sup>, respectively;

WHEREAS, in April 2005, U.S. EPA designated the San Joaquin Valley Air Basin as nonattainment for both the 65 ug/m<sup>3</sup> and 15 ug/m<sup>3</sup> PM<sub>2.5</sub> NAAQS;

WHEREAS, in 2008, the San Joaquin Valley Air Pollution Control District (District) and ARB adopted a PM<sub>2.5</sub> SIP (2008 PM<sub>2.5</sub> Plan) to address the 65 ug/m<sup>3</sup> 24-hour PM<sub>2.5</sub> NAAQS and transmitted it to U.S. EPA;

WHEREAS, on November 9, 2011, U. S. EPA approved all elements of the 2008 PM<sub>2.5</sub> Plan except for the contingency measures;

WHEREAS, the Act requires U.S. EPA to review existing NAAQS every five years and promulgate new standards as may be appropriate;

WHEREAS, in December 2006, U.S. EPA lowered the 24-hour PM<sub>2.5</sub> NAAQS from 65 ug/m<sup>3</sup> to 35 ug/m<sup>3</sup>;

WHEREAS, effective December 14, 2009, U.S. EPA designated the San Joaquin Valley Air Basin as nonattainment for the 35 ug/m<sup>3</sup> PM<sub>2.5</sub> NAAQS;

WHEREAS, in March 2007, U.S. EPA finalized the PM<sub>2.5</sub> implementation rule (Rule) which established the framework and requirements that states must meet in developing PM<sub>2.5</sub> SIPs;

WHEREAS, on March 12, 2012, U.S. EPA issued a memorandum that provided further guidance on developing SIPs specific to the 24-hour 35 ug/m<sup>3</sup> PM<sub>2.5</sub> NAAQS and set an initial attainment date of December 14, 2014, with a provision for an attainment date extension for up to five years;

WHEREAS, the Rule requires that PM<sub>2.5</sub> SIPs include air quality and emissions data, a control strategy, a modeled attainment demonstration, rate of progress (RFP) milestones, transportation conformity emission budgets, reasonably available control measure/ reasonably available technology (RACM/RACT) demonstration, and contingency measures;

WHEREAS, the District prepared the San Joaquin Valley 2012 PM<sub>2.5</sub> Plan (2012 PM<sub>2.5</sub> Plan) to fulfill the planning requirements of the Act and Rule for the 24-hour 35 ug/m<sup>3</sup> PM<sub>2.5</sub> NAAQS;

WHEREAS, ARB staff performed PM<sub>2.5</sub> air quality modeling plus supplemental analyses of PM<sub>2.5</sub> air quality monitoring data and trends, PM<sub>2.5</sub> speciation data, and emission inventory trends, consistent with U.S. EPA modeling guidance;

WHEREAS, the 2012 PM2.5 Plan air quality modeling is based on the latest scientific information developed from over 15 years of comprehensive air quality studies in the San Joaquin Valley;

WHEREAS, the Rule requires that PM2.5 plans identify and evaluate sources of directly emitted PM2.5 and the PM2.5 attainment plan precursors nitrogen oxides (NOx) and sulfur oxides (SOx);

WHEREAS, the Rule requires that to identify ammonia or volatile organic compounds (VOCs) as attainment plan precursors in a PM2.5 plan, the state must provide a technical demonstration showing that the precursor significantly contributes to PM2.5 concentrations;

WHEREAS, ARB staff performed modeling and technical analyses to determine whether VOCs or ammonia should be considered a significant precursor for purposes of attaining the 24-hour PM2.5 standard;

WHEREAS, the modeling and technical analyses quantified the magnitude of the PM2.5 concentration change and the effectiveness on a per ton basis of reductions in each precursor;

WHEREAS, the modeling and technical analyses showed that reductions in VOCs resulted in a very small increase in PM2.5 concentrations, therefore VOCs are not a PM2.5 attainment plan precursor;

WHEREAS, the modeling and technical analyses found that reductions in ammonia produced a much smaller decrease in PM2.5 concentrations than reductions in directly emitted PM2.5 and NOx. These analyses further found that reductions in directly emitted PM2.5 are forty times more effective, and reductions in NOx are ten times more effective than reductions in ammonia on a per ton basis, therefore ammonia is not a PM2.5 plan precursor;

WHEREAS, the attainment analysis for the 2012 PM2.5 Plan demonstrates that a 30 percent reduction in NOx emissions from the projected 2007 emission levels, beyond the new reductions resulting from adopted regulations would be needed to attain the 24-hour PM2.5 NAAQS by the December 14, 2014, deadline;

WHEREAS, the District was unable to identify additional new reductions sufficient for the San Joaquin Valley to attain the PM2.5 NAAQS by December 14, 2014;

WHEREAS, in accordance with section 172(b)(2) of the Act, the 2012 PM2.5 Plan identifies December 14, 2019, as the most expeditious attainment date;

WHEREAS, the attainment analysis demonstrates that the 24-hour PM2.5 NAAQS will be met throughout the San Joaquin Valley by the 2019 proposed attainment date;

WHEREAS, ARB's adopted mobile source regulations reduce NOx emissions by 235 tons per day in the San Joaquin Valley between 2007 and 2019;

WHEREAS, the PM2.5 attainment demonstration relies on adopted regulations and new District commitments to adopt five control measures, including two that reduce the impacts of direct PM2.5 targeting residential wood burning and commercial charbroiling;

WHEREAS, the District plan also identifies seven further study measures including evaluating ammonia at confined animal facilities;

WHEREAS, consistent with section 172(c) of the Act, the 2012 PM2.5 Plan demonstrates the implementation of reasonably available control technologies (RACT) and reasonably available control measures (RACM) for direct PM2.5 and the area's relevant precursors;

WHEREAS, consistent with section 172(c)(2) of the Act, the 2012 PM2.5 Plan demonstrates reasonable further progress (RFP) requirement targets for attainment demonstrations;

WHEREAS, consistent with section 172(c)(9) of the Act, the 2012 PM2.5 Plan includes contingency measures that provide extra emissions reductions that go into effect without further regulatory action if the area fails to make RFP or attainment on time;

WHEREAS, consistent with section 172(c)(3) of the Act, the 2012 PM2.5 Plan includes a comprehensive, accurate, current inventory of emissions data for directly emitted PM2.5 and its precursors: oxides of nitrogen (NOx), reactive organic gases (ROG), sulfur oxides (SOx), and ammonia (NH3) all sources of the relevant pollutants in the area;

WHEREAS, consistent with section 176 of the Act, the District developed transportation conformity emission budgets in consultation with the District, transportation agencies, and U.S. EPA that conform to the RFP and attainment emission levels;

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, as required by federal law, the District made the 2012 PM2.5 Plan available for public review at least 30 days before the District hearing;

WHEREAS, following a public hearing on December 20, 2012, the Governing Board of the District voted to approve the 2012 PM2.5 Plan, and to request a 5-year extension of the PM2.5 attainment date to December 14, 2019;

WHEREAS, the California Environmental Quality Act (CEQA) requires that no project which may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, to meet the requirements of CEQA, the District prepared an Initial Study and a Draft Negative Declaration for the 2012 PM2.5 Plan, which was circulated for public review and comment from November 9, 2012, to December 8, 2012, and was adopted at the public hearing on December 20, 2012;

WHEREAS, on December 26, 2012, the District transmitted the 2012 PM2.5 Plan to ARB as a SIP revision, along with proof of public notice publication and environmental documents in accordance with State and federal law.

WHEREAS, the Board finds that:

1. The 2012 PM2.5 Plan meets all applicable Clean Air Act planning requirements, and includes the required air quality and emissions data, modeled attainment demonstration, RFP demonstration, transportation conformity emission budgets, RACM/RACT demonstration, and the required contingency measures;
2. Adopted regulations, combined with new District control measures identified in the adopted 2012 PM2.5 Plan, will provide the emission reductions needed for meeting the PM2.5 NAAQS by the December 14, 2019 attainment date;
3. Adopted State mobile source control regulations will provide the majority of the required contingency reductions, supplemented with additional District measures. These regulations will achieve additional emission reductions beyond those relied on in the RFP and attainment demonstrations;
4. Direct PM2.5 and NOx emissions in the San Joaquin Valley are projected to decline through 2019 and continue declining thereafter due to adopted State, federal, and local controls;
5. The level of reductions needed to attain the PM2.5 24-hour NAAQS in the San Joaquin Valley makes it necessary to request an attainment deadline of December 14, 2019, as allowed by the Act; and
6. ARB has reviewed and considered the Initial Study and Negative Declaration prepared for the 2012 PM2.5 Plan and finds it complies with the requirements of CEQA.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts the 2012 PM2.5 Plan as a revision to the California SIP.

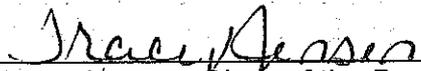
BE IT FURTHER RESOLVED that the Board hereby directs the Executive Officer to forward the 2012 PM2.5 Plan as adopted by the District to U.S. EPA for inclusion in the SIP to be effective, for purposes of federal law, upon approval by U.S. EPA.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to work with the District and U.S. EPA and 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 hereby certifies pursuant to 40 CFR section 51.102 that the District's 2012 PM2.5 Plan was adopted after notice and public hearing as required by 40 CFR section 51.102.

I hereby certify that the above is a true and correct copy of Resolution 13-2, as adopted by the Air Resources Board.

  
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Tracy Jensen, Clerk of the Board