



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R09-OAR-2023-0477; FRL-11532-01-R9]

### Clean Air Plans; Contingency Measures for the Fine Particulate Matter Standards; San Joaquin Valley, California

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve two state implementation plan (SIP) submissions under the Clean Air Act (CAA) that address the contingency measures requirements for the 1997 annual, 2006 24-hour, and 2012 annual fine particulate matter (PM<sub>2.5</sub>) national ambient air quality standards (NAAQS or “standards”) for the San Joaquin Valley PM<sub>2.5</sub> nonattainment area. The two SIP submissions include the area’s contingency measure plan element and two specific contingency measures that would apply to residential wood burning heaters and fireplaces and non-agricultural, rural open areas. A third contingency measure, applicable to light-duty on-road motor vehicles, is the subject of a separate action by the EPA, but the related emissions reductions from the third measure are accounted for in this proposed rule. The EPA is proposing approval of the SIP submissions because the Agency has determined that they are in accordance with the applicable requirements for such SIP submissions under the CAA and EPA implementation regulations for the PM<sub>2.5</sub> NAAQS. The proposed approval, if finalized, would incorporate the two contingency measures into the federally enforceable SIP. The EPA will accept comments on this proposed rule during a 30-day public comment period.

**DATES:** Comments must be received 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–2023–0477 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 (e.g., audio or video) 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 a disability 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:** Rory Mays, Planning and Analysis Branch (AIR-2), Air and Radiation Division, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105. By phone: (415) 972-3227 or by email at [mays.rory@epa.gov](mailto:mays.rory@epa.gov).

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

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## **I. Background for Proposed Action**

### *A. Standards, Designations, Classifications, and Plans*

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. To date, the EPA has established NAAQS for particulate matter, ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and lead. Under CAA section 110, states have primary responsibility for meeting the NAAQS within the state, and must submit an implementation plan that specifies the manner in which the state will attain and maintain the NAAQS. These implementation plans are referred to as “state implementation plans” or “SIPs.”

Periodically, states must make SIP submissions of different types to meet additional CAA requirements. For example, after the EPA promulgates a new or revised NAAQS, under CAA section 110(a)(1) and (2), states are required to adopt and submit to the EPA a state implementation plan that provides for implementation, maintenance, and enforcement of the NAAQS. Such plans are referred to as “infrastructure SIPs.” Similarly, after the EPA promulgates designations for a new or revised NAAQS, states with designated nonattainment areas must make SIP submissions that meet additional requirements for such nonattainment areas, under CAA section 172(c) and, in the case of the PM<sub>2.5</sub> NAAQS, CAA sections 188 and 189. This type of SIP submission is referred to as an “attainment plan.”

Under CAA section 110(k), the EPA is charged with evaluation of each SIP submission submitted by states for compliance with applicable CAA requirements, and for approval or disapproval (in whole or in part) of the submission. The EPA evaluates SIP submissions and takes action to approve, disapprove, or conditionally approve them through notice-and-comment rulemaking published in the *Federal Register*. Where appropriate, the EPA may act on specific parts of a SIP submission in separate rulemaking actions.

In 1997, the EPA promulgated new NAAQS for fine particulate matter, using particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (“PM<sub>2.5</sub>”) as the indicator.<sup>1</sup> The EPA established primary and secondary annual and 24-hour standards for PM<sub>2.5</sub>. The EPA set the 1997 annual PM<sub>2.5</sub> NAAQS, both primary and secondary standards, at 15.0 micrograms per cubic meter (µg/m<sup>3</sup>), based on a 3-year average of annual mean PM<sub>2.5</sub> concentrations. The EPA set the 1997 24-hour PM<sub>2.5</sub> NAAQS, both primary and secondary standards, at 65 µg/m<sup>3</sup>, based on the 3-year average of the 98th percentile of 24-hour PM<sub>2.5</sub> concentrations. Collectively, we refer herein to the 1997 24-hour and annual PM<sub>2.5</sub> NAAQS as the “1997 PM<sub>2.5</sub> NAAQS.” In 2006, the EPA promulgated a new, more stringent 24-hour NAAQS for PM<sub>2.5</sub> by lowering the primary and secondary standards level from 65 µg/m<sup>3</sup> to 35

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<sup>1</sup> 62 FR 38652 (July 18, 1997) and 40 CFR 50.7.

$\mu\text{g}/\text{m}^3$  (referred to herein as the “2006 24-hour  $\text{PM}_{2.5}$  NAAQS”).<sup>2</sup> In 2012, the EPA promulgated a new, more stringent annual NAAQS for  $\text{PM}_{2.5}$  by lowering the primary standards level from  $15.0 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$  (herein referred to as the “2012 annual  $\text{PM}_{2.5}$  NAAQS”).<sup>3</sup> Each iteration of the  $\text{PM}_{2.5}$  NAAQS remains in effect, and states with designated nonattainment areas for each of them are obligated to meet applicable attainment plan requirements for them.

The EPA established each of these NAAQS after considering substantial evidence from numerous health studies demonstrating that serious health effects are associated with exposures to  $\text{PM}_{2.5}$  concentrations above these levels. Epidemiological studies have shown statistically significant correlations between elevated  $\text{PM}_{2.5}$  levels and premature mortality. Other important health effects associated with  $\text{PM}_{2.5}$  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. Individuals particularly sensitive to  $\text{PM}_{2.5}$  exposure include older adults, people with heart and lung disease, and children.<sup>4</sup>  $\text{PM}_{2.5}$  can be particles emitted by sources directly into the atmosphere as a solid or liquid particle (“primary  $\text{PM}_{2.5}$ ” or “direct  $\text{PM}_{2.5}$ ”), or can be particles that form in the atmosphere as a result of various chemical reactions involving  $\text{PM}_{2.5}$  precursor emissions emitted by sources (“secondary  $\text{PM}_{2.5}$ ”). The EPA has identified the precursors of  $\text{PM}_{2.5}$  to be oxides of nitrogen (“ $\text{NO}_x$ ”), sulfur oxides (“ $\text{SO}_x$ ”), volatile organic compounds (VOCs), and ammonia.<sup>5</sup>

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. As noted previously, for areas the EPA has designated nonattainment, states are required under

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<sup>2</sup> 71 FR 61144 (October 17, 2006) and 40 CFR 50.13.

<sup>3</sup> 78 FR 3086 (January 15, 2013) and 40 CFR 50.18.

<sup>4</sup> 78 FR 3086, 3088.

<sup>5</sup> EPA, Air Quality Criteria for Particulate Matter, No. EPA/600/P-99/002aF and EPA/600/P-99/002bF, October 2004.

the CAA to submit attainment plan SIP submissions. These SIP submissions must provide for, among other elements, reasonable further progress (RFP) towards attainment of the NAAQS, attainment of the NAAQS no later than the applicable attainment date, and implementation of contingency measures to take effect if the state fails to meet RFP or to attain the NAAQS by the applicable attainment date.

The San Joaquin Valley is located in the southern half of California's Central Valley and includes all of San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, and Kings Counties, and the valley portion of Kern County.<sup>6</sup> 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. In 2005, the EPA designated the San Joaquin Valley as nonattainment for the 1997 annual PM<sub>2.5</sub> NAAQS and nonattainment for the 1997 24-hour PM<sub>2.5</sub> NAAQS.<sup>7</sup>

The local air district with primary responsibility for developing attainment plan SIP submissions for the PM<sub>2.5</sub> NAAQS in this area is the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD or "District"). Once the District adopts the regional plan, the District submits the plan to the California Air Resources Board (CARB) for adoption as part of the California SIP. CARB is the State agency responsible for adopting and revising the California SIP and for submitting the SIP and SIP revisions to the EPA. Generally speaking, under California law, CARB is responsible for regulation of mobile sources while the local air districts are responsible for regulation of stationary sources.

Originally, the EPA designated areas for the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS under subpart 1 (of part D of title I of the CAA), i.e., without specifying the classifications of

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<sup>6</sup> For a precise description of the geographic boundaries of the San Joaquin Valley nonattainment area, see 40 CFR 81.305.

<sup>7</sup> 70 FR 944 (January 5, 2005), codified at 40 CFR 81.305.

nonattainment required by subpart 4. Later, in response to a court decision,<sup>8</sup> the EPA classified nonattainment areas for the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS, consistent with the classifications set forth in subpart 4. With respect to San Joaquin Valley, in 2014, the EPA classified the San Joaquin Valley as a “Moderate” nonattainment area,<sup>9</sup> and then in 2015, reclassified the area as a “Serious” nonattainment area for the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS.<sup>10</sup>

In 2016, the EPA determined that the San Joaquin Valley had failed to attain the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS by the applicable “Serious” area attainment date.<sup>11</sup> As a result, the State of California was required, under CAA section 189(d), to submit a new SIP submission that, among other elements, provides for expeditious attainment of the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS and for a minimum five percent annual reduction in the emissions of direct PM<sub>2.5</sub> or a PM<sub>2.5</sub> plan precursor pollutant in the San Joaquin Valley (herein, referred to as a “Five Percent Plan”). The Five Percent Plan for the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS was due no later than December 31, 2016.<sup>12</sup>

With respect to the 2006 24-hour PM<sub>2.5</sub> NAAQS, the EPA initially designated San Joaquin Valley as nonattainment under subpart 1 (i.e., without classification)<sup>13</sup> but, in 2014, in response to the court decision referred to previously, the EPA classified the area as Moderate.<sup>14</sup> In 2016, the EPA reclassified San Joaquin Valley as a Serious nonattainment area for the 2006 24-hour PM<sub>2.5</sub> NAAQS based on the EPA’s determination that the area could not practicably

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<sup>8</sup> In *Natural Resources Defense Council v. EPA*, 706 F.3d 428 (D.C. Cir. 2013), the U.S. Court of Appeals for D.C. Circuit concluded that the EPA erred in implementing the 1997 PM<sub>2.5</sub> NAAQS solely pursuant to the general implementation requirements of subpart 1, without also considering the requirements specific to PM<sub>10</sub> nonattainment areas in subpart 4, part D of title I of the CAA.

<sup>9</sup> 79 FR 31566 (June 2, 2014).

<sup>10</sup> 80 FR 18528 (April 7, 2015).

<sup>11</sup> 81 FR 84481 (November 23, 2016).

<sup>12</sup> *Id.* at 84482.

<sup>13</sup> 74 FR 58688 (November 13, 2009).

<sup>14</sup> 79 FR 31566.

attain these NAAQS by the applicable attainment date of December 31, 2015.<sup>15</sup> The EPA established an August 21, 2017 deadline for California to adopt and submit a SIP submission addressing the Serious nonattainment area requirements for the 2006 24-hour PM<sub>2.5</sub> NAAQS.<sup>16</sup>

With respect to the 2012 annual PM<sub>2.5</sub> NAAQS, the EPA designated San Joaquin Valley as a Moderate nonattainment area in 2015.<sup>17</sup> Under CAA section 189 and the EPA's PM<sub>2.5</sub> SIP Requirements Rule,<sup>18</sup> the deadline for the state to submit an attainment plan SIP submission addressing the Moderate nonattainment area requirements for the 2012 annual PM<sub>2.5</sub> NAAQS is 18 months from the effective date of the designation of the area.<sup>19</sup> The effective date of the designation of the San Joaquin Valley as a Moderate nonattainment area for the 2012 annual PM<sub>2.5</sub> NAAQS was April 15, 2015, and thus, the deadline for a SIP submission addressing the Moderate area requirements was October 15, 2016.

### *B. Findings and Contingency Measure Disapprovals*

In the wake of these EPA actions, CARB and the District worked together to prepare a comprehensive SIP submission to address the nonattainment area requirements for the 1997, 2006, and 2012 PM<sub>2.5</sub> NAAQS for San Joaquin Valley, but did not meet the various SIP submission deadlines. In late 2018, the EPA issued a finding of failure to submit to the State for the required attainment plan SIP submissions for the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS, the 2006 24-hour PM<sub>2.5</sub> NAAQS, and the 2012 annual PM<sub>2.5</sub> NAAQS for the San Joaquin Valley.<sup>20</sup> The EPA's finding of failure to submit was effective January 7, 2019. Under CAA section 110(c), the EPA is obligated to promulgate a Federal Implementation Plan (FIP) within two years of a finding that a state has failed to make a required SIP submission, unless the state submits a SIP submission that corrects the deficiency, and the EPA approves that SIP

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<sup>15</sup> 81 FR 2993 (January 20, 2016).

<sup>16</sup> *Id.* at 3000.

<sup>17</sup> 80 FR 2206 (January 15, 2015).

<sup>18</sup> 81 FR 58010 (August 24, 2016); codified at 40 CFR part 51, subpart Z.

<sup>19</sup> 40 CFR 51.1003(a).

<sup>20</sup> 83 FR 62720 (December 6, 2018).

submission, before the EPA promulgates such FIP.<sup>21</sup> In this case, the finding of failure to submit established a deadline of January 7, 2021, for the EPA to promulgate a FIP to address all applicable attainment plan requirements for the 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS, the 2006 24-hour PM<sub>2.5</sub> NAAQS, and 2012 annual PM<sub>2.5</sub> NAAQS for San Joaquin Valley, for which the EPA had not received and approved an adequate SIP submission from the State.

To address a portion of current FIP obligation, the EPA recently proposed a FIP to address the contingency measures requirements for the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS.<sup>22</sup> In short, the proposed contingency measure FIP includes two specific contingency measures, one of which would extend certain wood-burning curtailment restrictions Valley-wide and another which would extend certain fugitive dust requirements to certain open areas that are not currently subject to control requirements.

On May 10, 2019, CARB submitted two SIP submissions to address the nonattainment area requirements for all four of the relevant PM<sub>2.5</sub> NAAQS for the San Joaquin Valley, including the contingency measure requirement.<sup>23</sup> On November 8, 2021, CARB submitted a third SIP submission to amend the portions of the May 10, 2019 SIP submissions that pertain to the 1997 annual PM<sub>2.5</sub> NAAQS.<sup>24</sup> As discussed in the following paragraph, the EPA has previously taken a series of actions on these SIP submissions to address different nonattainment area requirements for each of the NAAQS. In this proposed action, we are focused only on the contingency measure requirements.

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<sup>21</sup> The finding of failure to submit also started an 18-month new source review (NSR) offset sanction clock and a 24-month highway sanction clock for the State of California. CAA section 179(a) and 40 CFR 52.31.

<sup>22</sup> 88 FR 53431 (August 8, 2023).

<sup>23</sup> The SIP revisions submitted on May 10, 2019, include the “2016 Moderate Area Plan for the 2012 PM<sub>2.5</sub> Standard” (“2016 PM<sub>2.5</sub> Plan”) and the “2018 Plan for the 1997, 2006, and 2012 PM<sub>2.5</sub> Standards” (“2018 PM<sub>2.5</sub> Plan”), which incorporates by reference the “San Joaquin Valley Supplement to the 2016 State Strategy for the State Implementation Plan” (“Valley State SIP Strategy”). On February 11, 2020, CARB submitted a revised version of Appendix H (“RFP, Quantitative Milestones, and Contingency”) that replaces the version submitted with the 2018 PM<sub>2.5</sub> Plan on May 10, 2019. The EPA found the SIP submissions complete in a letter dated June 24, 2020, from Elizabeth J. Adams, Director, EPA Region IX, to Richard W. Corey, Executive Officer, CARB. The EPA’s completeness determination terminated the NSR offsets and highway sanctions started by the December 6, 2018 finding of failure to submit but did not affect the FIP obligation.

<sup>24</sup> The SIP revision submitted on November 8, 2021, is titled “Attainment Plan Revision for the 1997 Annual PM<sub>2.5</sub> Standard” (“15 µg/m<sup>3</sup> SIP Revision”).

In 2020, the EPA approved the portion of the SIP submissions related to the 2006 24-hour PM<sub>2.5</sub> NAAQS, but deferred action on the contingency measure element.<sup>25</sup> In 2021, the EPA approved the portion of the SIP submissions related to the Moderate area requirements for the 2012 annual PM<sub>2.5</sub> NAAQS except for the contingency measure element, which the EPA disapproved.<sup>26</sup> The EPA also disapproved the previously-deferred contingency measure element for the 2006 24-hour PM<sub>2.5</sub> NAAQS.<sup>27</sup> In another 2021 action, the EPA disapproved the portion of the SIP submissions related to the 1997 annual PM<sub>2.5</sub> NAAQS except for the emissions inventory, which the Agency approved.<sup>28</sup> In 2022, the EPA approved the portion of the SIP submission related to the 1997 24-hour PM<sub>2.5</sub> NAAQS, with the exception of the contingency measure element.<sup>29</sup> In our action on the SIP submission related to the 1997 24-hour PM<sub>2.5</sub> NAAQS, we disapproved the contingency measure element, but also found that the contingency measure requirement was moot for that particular PM<sub>2.5</sub> NAAQS because of the EPA's concurrent determination of attainment by the applicable attainment date for San Joaquin Valley for the 1997 24-hour PM<sub>2.5</sub> NAAQS.<sup>30</sup>

In July 2023, the EPA proposed approval of the portions of the three SIP submissions that pertain to the 1997 annual PM<sub>2.5</sub> NAAQS in the San Joaquin Valley nonattainment area.<sup>31</sup> More recently, we took action to finalize our approval of the SIP submissions for the 1997 annual PM<sub>2.5</sub> NAAQS, as proposed; however, our recent action on various elements of the San Joaquin Valley PM<sub>2.5</sub> plan for the 1997 annual PM<sub>2.5</sub> NAAQS did not address the contingency measures requirements for that particular PM<sub>2.5</sub> NAAQS.<sup>32</sup>

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<sup>25</sup> 85 FR 44192 (July 22, 2020).

<sup>26</sup> 86 FR 67343 (November 26, 2021).

<sup>27</sup> *Id.*

<sup>28</sup> 86 FR 67329 (November 26, 2021).

<sup>29</sup> 87 FR 4503 (January 28, 2022).

<sup>30</sup> *Id.*

<sup>31</sup> 88 FR 45276 (July 14, 2023).

<sup>32</sup> EPA, "Air Quality State Implementation Plans; Approvals and Promulgations: California; 1997 Annual Fine Particulate Matter Serious and Clean Air Act Section 189(d) Nonattainment Area Requirements; San Joaquin Valley, CA," Final rule, signed December 5, 2023.

With respect to contingency measure elements, the State's May 10, 2019 PM<sub>2.5</sub> SIP submissions for San Joaquin Valley relied upon contingency provisions included in District Rule 4901 ("Wood Burning Fireplaces and Wood Burning Heaters"), specifically section 5.7.3 of the rule, and a demonstration that the emissions reductions from the contingency measure would be sufficient to meet the contingency measure SIP requirements of CAA section 172(c)(9) if the reductions were viewed together with "surplus"<sup>33</sup> emissions reductions from already-implemented measures.<sup>34</sup> We disapproved the contingency measure elements for San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS because the contingency provision (i.e., section 5.7.3) in Rule 4901 did not address the potential for State failures to meet RFP, to meet a quantitative milestone, or to submit a quantitative milestone report. In addition, the contingency measure provision of Rule 4901 was not structured to achieve any additional emissions reductions if the EPA were to find that the monitoring locations in the "hot spot" counties (i.e., Fresno, Kern, or Madera) are the only counties in the San Joaquin Valley that are violating the PM<sub>2.5</sub> NAAQS as of the attainment date.<sup>35</sup> In addition, the contingency measure elements did not provide sufficient justification as to why the one adopted contingency measure (in Rule 4901) would suffice to meet the CAA requirements for contingency measures for the PM<sub>2.5</sub> NAAQS for San Joaquin Valley notwithstanding the fact that the one measure would not achieve one year's worth of RFP, as recommended in longstanding EPA guidance.<sup>36, 37</sup>

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<sup>33</sup> In this context, "surplus" refers to emissions reductions not otherwise relied upon for RFP or attainment demonstrations.

<sup>34</sup> See 86 FR 38652, 38668-38669 (July 22, 2021); 86 FR 49100, 49123-49124 and 49132-49133 (September 1, 2021).

<sup>35</sup> See 86 FR 38652, 38669-38670 (proposed disapproval of the contingency measure element for the 1997 annual PM<sub>2.5</sub> NAAQS); and 86 FR 49100, 49124-49125 (proposed disapproval of the contingency measure element for the 2012 annual PM<sub>2.5</sub> NAAQS) and 49133-49134 (proposed disapproval of the contingency measure element for the 2006 24-hour PM<sub>2.5</sub> NAAQS) (September 1, 2021). The proposed disapprovals were finalized at 86 FR 67329 (1997 annual PM<sub>2.5</sub> NAAQS); 86 FR 67343 (2012 annual PM<sub>2.5</sub> NAAQS and 2006 24-hour PM<sub>2.5</sub> NAAQS).

<sup>36</sup> *Id.*

<sup>37</sup> 81 FR 58010, 58066. See also 57 FR 13498, 13511, 13543-13544 (April 16, 1992), and 59 FR 41998, 42014-42015 (August 16, 1994).

In our final rules disapproving the contingency measure elements for San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS, we indicated that the disapprovals would begin an 18-month clock for imposition of the offset sanction in CAA section 179(b)(2) and a 24-month clock for imposition of the highway funding sanction in CAA section 179(b)(1) unless the State submits, and the EPA approves, a SIP revision that corrects the deficiencies that we identified in our final actions prior to implementation of the sanctions.<sup>38</sup>

## **II. Summary of SIP Submissions and Evaluation for Compliance with SIP Revision**

### **Procedural Requirements**

#### *A. Summary of SIP Submissions*

On June 8, 2023, CARB submitted the “PM<sub>2.5</sub> Contingency Measure State Implementation Plan Revision (May 18, 2023)” (herein referred to as the “SJV PM<sub>2.5</sub> Contingency Measure SIP”) to the EPA as a revision to the California SIP.<sup>39</sup> Also on June 8, 2023, CARB submitted revisions to Rule 4901 that add PM<sub>2.5</sub> NAAQS contingency provisions that we refer to herein as the “Residential Wood Burning Contingency Measure.” The District adopted the SJV PM<sub>2.5</sub> Contingency Measure SIP and Residential Wood Burning Contingency Measure on May 18, 2023, and submitted them to CARB for adoption and submission to the EPA as SIP revisions. The District adopted the SJV PM<sub>2.5</sub> Contingency Measure SIP and Residential Wood Burning Contingency Measure to correct the deficiencies identified by the EPA in the November 26, 2021 disapprovals of the contingency measure elements for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS and the previously adopted contingency provisions of Rule 4901. In this document, we are proposing action on both the SJV PM<sub>2.5</sub> Contingency Measure SIP and the Residential Wood Burning Contingency Measure.

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<sup>38</sup> 86 FR 67329, 67341 (1997 annual PM<sub>2.5</sub> NAAQS); 86 FR 67343, 67346-67347 (2012 annual PM<sub>2.5</sub> NAAQS and 2006 24-hour PM<sub>2.5</sub> NAAQS).

<sup>39</sup> CARB adopted the SJV PM<sub>2.5</sub> Contingency Measure SIP and Residential Wood Burning Contingency Measure as SIP revisions on June 7, 2023, through Executive Order S-23-010 and submitted the SIP revisions to the EPA electronically on June 8, 2023, as attachments to a letter dated June 7, 2023, from Steven S. Cliff, Ph.D., Executive Officer, CARB to Martha Guzman, Regional Administrator, EPA Region IX.

The June 8, 2023 SIP submission includes the two specific SIP revisions (i.e., the SJV PM<sub>2.5</sub> Contingency Measure SIP and the Residential Wood Burning Contingency Measure), as well as supporting material including the resolutions of adoption, CARB evaluation and completeness forms, and evidence of public notice and hearing. The SJV PM<sub>2.5</sub> Contingency Measure SIP includes a general discussion of contingency measures and related requirements and guidance, context for this particular SIP revision, and feasibility analyses developed by the District and CARB to identify potential contingency measures for the PM<sub>2.5</sub> NAAQS for the San Joaquin Valley. (In our evaluation of the latter, we refer to the State’s feasibility analyses herein as infeasibility demonstrations.) The SJV PM<sub>2.5</sub> Contingency Measure SIP includes appendices that provide further detailed information and documentation for, among other things, the emissions reductions estimated for the Residential Wood Burning Contingency Measure. The District also attached excerpts from certain previously submitted SIPs to provide support for the conclusions drawn by the District and CARB with respect to the infeasibility of adopting additional contingency measures for the San Joaquin Valley. The June 8, 2023 SIP submission of the SJV PM<sub>2.5</sub> Contingency Measure SIP and Residential Wood Burning Contingency Measure was deemed administratively complete by operation of law on December 8, 2023, consistent with CAA section 110(k)(1).<sup>40</sup>

Through adoption of the SJV PM<sub>2.5</sub> Contingency Measure SIP, the District committed to evaluating revisions to a specific fugitive dust rule, District Rule 8051 (“Open Areas”), for potential as a second contingency measure for the PM<sub>2.5</sub> NAAQS for the SJV.<sup>41</sup> On September 21, 2023, the District adopted revisions to Rule 8051 to add contingency provisions that we refer to herein as the “Rural Open Areas Contingency Measure.” The District adopted the Rural Open Areas Contingency Measure to supplement the SJV PM<sub>2.5</sub> Contingency Measure SIP by providing additional emissions reductions for the San Joaquin Valley if triggered by one of the

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<sup>40</sup> In addition, see EPA Region IX SIP Completeness Checklist, October 13, 2023.

<sup>41</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 31-32.

contingency events. On October 16, 2023, CARB submitted the Rural Open Areas Contingency Measure to the EPA as a revision to the California SIP.<sup>42</sup> In this document, we are also proposing action on the Rural Open Areas Contingency Measure.

The October 16, 2023 SIP submission includes the SIP revision itself (i.e., the Rural Open Areas Contingency Measure) as well as supporting material including the resolutions of adoption, CARB evaluation and completeness forms, and evidence of public notice and hearing. The EPA has reviewed the October 16, 2023 SIP submission of the Rural Open Areas Contingency Measure and finds it to be administratively complete for the purposes of CAA section 110(k)(1), effective upon publication of this proposed rule.<sup>43</sup>

#### *B. Evaluation for Compliance with SIP Revision Procedural Requirements*

Under CAA section 110(l), SIP revisions must be adopted by the state, and the state must provide for reasonable public notice and hearing prior to adoption. Pursuant to 40 CFR 51.102, states must provide at least 30-days' notice of any public hearing to be held on a proposed SIP revision. States must provide the opportunity to submit written comments and allow the public the opportunity to request a public hearing within that period.<sup>44</sup>

The District adopted the SJV PM<sub>2.5</sub> Contingency Measure SIP and the Residential Wood Burning Contingency Measure on May 18, 2023, through Resolution No. 2023-5-7, following a public hearing held on the same day. Prior to adoption, the District published notice of the May 18, 2023 public hearing in newspapers of general circulation in each of the eight counties that comprise the San Joaquin Valley, and provided more than 30 days for submission of written

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<sup>42</sup> CARB adopted the Rural Open Areas Contingency Measure as a SIP revision on October 13, 2023, through Executive Order S-23-014 and submitted the SIP revision to the EPA electronically on October 16, 2023, as an attachment to a letter dated October 13, 2023, from Steven S. Cliff, Ph.D., Executive Officer, CARB to Martha Guzman, Regional Administrator, EPA Region IX.

<sup>43</sup> EPA Region IX SIP Completeness Checklist, October 18, 2023.

<sup>44</sup> In addition to establishing procedural requirements for SIP revisions, CAA section 110(l) prohibits the EPA from approving any SIP revision that would interfere with any applicable requirement for reasonable further progress (RFP) or attainment or any other applicable requirement of the CAA. In this instance, the Residential Wood Burning Contingency Measure and the Rural Open Areas Contingency Measure would provide emissions reductions beyond those needed for RFP and attainment of the NAAQS in San Joaquin Valley and, thus, would not interfere with the RFP and attainment demonstrations for the area.

comments. CARB subsequently adopted the SJV PM<sub>2.5</sub> Contingency Measure SIP and the Residential Wood Burning Contingency Measure as a revision to the SIP on June 7, 2023, through Executive Order S-23-010. CARB then submitted the SJV PM<sub>2.5</sub> Contingency Measure SIP and the Residential Wood Burning Contingency Measure to the EPA on June 8, 2023, as an attachment to a transmittal letter dated June 7, 2023.

The District adopted the Rural Open Areas Contingency Measure on September 21, 2023, through Resolution No. 2023-9-9, following a public hearing held on the same day. Prior to adoption, the District published notice of the September 21, 2023 public hearing in newspapers of general circulation in each of the eight counties that comprise the San Joaquin Valley, and provided more than 30 days for submission of written comments. CARB subsequently adopted the Rural Open Areas Contingency Measure as a revision to the SIP on October 13, 2023, through Executive Order S-23-014. CARB then submitted the Rural Open Areas Contingency Measure to the EPA on October 16, 2023, as an attachment to a transmittal letter dated October 13, 2023.

Based on the materials provided in the June 8, 2023 and October 16, 2023 SIP submissions, we propose to find that the District and the CARB have met the procedural requirements for adoption and submission of SIP revisions under CAA section 110(l) and 40 CFR 51.102.

### **III. Contingency Measure Requirements, Guidance, and Legal Precedent**

The EPA first provided its views on the CAA's requirements for particulate matter plans under part D, title I of the Act in the following guidance documents: (1) "State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" ("General Preamble");<sup>45</sup> (2) "State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; Supplemental";<sup>46</sup> and (3)

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<sup>45</sup> 57 FR 13498 (April 16, 1992).

<sup>46</sup> 57 FR 18070 (April 28, 1992).

“State Implementation Plans for Serious PM-10 Nonattainment Areas, and Attainment Date Waivers for PM-10 Nonattainment Areas Generally; Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990” (“General Preamble Addendum”).<sup>47</sup> More recently, in the PM<sub>2.5</sub> SIP Requirements Rule, the EPA established regulatory requirements and provided further interpretive guidance on the statutory SIP requirements that apply to areas designated nonattainment for all PM<sub>2.5</sub> NAAQS.<sup>48</sup>

#### *A. Statutory and Regulatory Requirements*

Under CAA section 172(c)(9), states required to make an attainment plan SIP submission must include contingency measures to be implemented if the area fails to meet RFP (“RFP contingency measures”) or fails to attain the NAAQS by the applicable attainment date (“attainment contingency measures”). Under the PM<sub>2.5</sub> SIP Requirements Rule, states must include contingency measures that provide that the state will implement them following a determination by the EPA that the state has failed: (1) to meet any RFP requirement in the approved SIP; (2) to meet any quantitative milestone (QM) in the approved SIP; (3) to submit a required QM report; or (4) to attain the applicable PM<sub>2.5</sub> NAAQS by the applicable attainment date.<sup>49</sup> Contingency measures must be fully adopted rules or control measures that are ready to be implemented quickly upon failure to meet RFP or failure of the area to meet the relevant NAAQS by the applicable attainment date.<sup>50</sup> In general, we expect all actions needed to effect full implementation of the measures to occur within 60 days after the EPA notifies the state of a failure to meet RFP or to attain.<sup>51</sup> Moreover, we expect the additional emissions reductions from the contingency measures to be achieved within a year of the triggering event.<sup>52</sup>

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<sup>47</sup> 59 FR 41998 (August 16, 1994).

<sup>48</sup> 81 FR 58010.

<sup>49</sup> 40 CFR 51.1014(a).

<sup>50</sup> 81 FR 58010, 58066 and General Preamble Addendum, 42015.

<sup>51</sup> 81 FR 58010, 58066. See also General Preamble 13512, 13543-13544, and General Preamble Addendum, 42014-42015.

<sup>52</sup> General Preamble, 13511.

The purpose of contingency measures is to continue progress in reducing emissions while a state revises its SIP to meet the missed RFP requirement or to correct ongoing nonattainment. Neither the CAA nor the EPA's implementing regulations establish a specific level of emission reductions that implementation of contingency measures must achieve, but the EPA recommends that contingency measures should provide for emission reductions equivalent to approximately one year of reductions needed for RFP in the nonattainment area.<sup>53</sup> For PM<sub>2.5</sub> NAAQS SIP planning purposes, the EPA recommends that RFP should be calculated as the overall level of reductions needed to demonstrate attainment divided by the number of years from the base year to the attainment year.<sup>54</sup> As part of the attainment plan SIP submission, the EPA expects states to explain the amount of anticipated emissions reductions that the contingency measures will achieve. In the event that a state is unable to identify and adopt contingency measures that will provide for approximately one year's worth of emissions reductions, then EPA recommends that the state provide a reasoned justification why the smaller amount of emissions reductions is appropriate.<sup>55</sup>

To satisfy the contingency measure requirements of 40 CFR 51.1014, the contingency measures adopted as part of a PM<sub>2.5</sub> NAAQS attainment plan must consist of control measures for the area that are not otherwise required to meet other attainment plan requirements (e.g., to meet reasonably available control measure (RACM)/reasonably available control technology (RACT) requirements). By definition, contingency measures are measures that are over and above what a state must adopt and impose to meet RFP and to provide for attainment by the applicable attainment date.

Contingency measures serve the purpose of providing additional emission reductions during the period after a failure to meet RFP or failure to attain as the state prepares a new SIP

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<sup>53</sup> 81 FR 58010, 58066. See also General Preamble, 13511, 13543-13544, and General Preamble Addendum, 42014-42015.

<sup>54</sup> 81 FR 58010, 58066.

<sup>55</sup> 81 FR 58010, 58067.

submission to rectify the problem. Accordingly, contingency measures must provide such additional emission reductions during an appropriate period and must specify the timeframe within which their requirements would become effective following any of the EPA determinations specified in 40 CFR 51.1014(a).

In addition, to comply with CAA section 172(c)(9), contingency measures must be both conditional and prospective, so that they will go into effect and achieve emission reductions only in the event of a future triggering event such as a failure to meet RFP or a failure to attain. In a 2016 decision called *Bahr v. EPA*,<sup>56</sup> the Ninth Circuit Court of Appeals held that CAA section 172(c)(9) does not allow EPA approval of already-implemented control measures as contingency measures. Thus, already-implemented measures cannot serve as contingency measures under CAA section 172(c)(9). For purposes of the PM<sub>2.5</sub> NAAQS, a state must develop, adopt, and submit one or more contingency measures to be triggered upon a failure to meet any RFP requirement, failure to meet a quantitative milestone requirement, or failure to attain the NAAQS by the applicable attainment date, regardless of the extent to which already-implemented measures would achieve surplus emission reductions beyond those necessary to meet RFP or quantitative milestone requirements and beyond those predicted to achieve attainment of the NAAQS.

In a recent decision on the EPA's approval of a SIP contingency measure element for the ozone NAAQS, the Ninth Circuit Court of Appeals held that, under the EPA's current guidance, the surplus emissions reductions from already-implemented measures cannot be relied upon to justify the approval of a contingency measure that would achieve far less than one year's worth of RFP as sufficient by itself to meet the contingency measure requirements of CAA sections 172(c)(9) and 182(c)(9) for the nonattainment area.<sup>57</sup>

#### *B. Draft Revised Contingency Measure Guidance*

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<sup>56</sup> *Bahr v. EPA*, 836 F.3d 1218, 1235–1237 (9th Cir. 2016). See also *Sierra Club v. EPA*, 21 F.4th 815, 827–28 (D.C. Cir. 2021).

<sup>57</sup> *Assoc. of Irrigated Residents v. EPA*, 10 F.4th 937, 946–47 (9th Cir. 2021) (“*AIR v. EPA*” or “*AIR*”).

In March 2023, the EPA published notice of availability announcing a new draft guidance addressing the contingency measures requirement of section 172(c)(9), entitled “Draft: Guidance on the Preparation of State Implementation Plan Provisions that Address the Nonattainment Area Contingency Measure Requirements for Ozone and Particulate Matter (DRAFT - 3/17/23 – Public Review Version)” (herein referred to as the “Draft Revised Contingency Measure Guidance”) and opportunity for public comment.<sup>58</sup> The principal differences between the draft revised guidance and existing guidance on contingency measures relate to the EPA’s recommendations concerning the specific amount of emission reductions that implementation of contingency measures should achieve, and the timing for when the emissions reductions from the contingency measures should occur. The Draft Revised Contingency Measure Guidance also provides recommended procedures for developing a demonstration, if applicable, that the area lacks sufficient feasible measures to achieve one year’s worth of reductions, building on existing guidance that the state provide a reasoned justification why the smaller amount of emissions reductions is appropriate.

Under the Draft Revised Contingency Measure Guidance, the recommended level of emissions reductions that contingency measures should achieve would represent one year’s worth of “progress” as opposed to one year’s worth of RFP.<sup>59</sup> One year’s worth of “progress” is calculated by determining the average annual reductions between the base year emissions inventory and the projected attainment year emissions inventory, determining what percentage of the base year emissions inventory this amount represents, then applying that percentage to the projected attainment year emissions inventory to determine the amount of reductions needed to ensure ongoing progress if contingency measures are triggered.

With respect to the time period within which reductions from contingency measures should occur, the EPA previously recommended that contingency measures take effect within 60

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<sup>58</sup> 88 FR 17571 (March 23, 2023). The Draft Revised Contingency Measure Guidance is available at <https://www.epa.gov/air-quality-implementation-plans/draft-contingency-measures-guidance>.

<sup>59</sup> Draft Revised Contingency Measure Guidance, p. 22.

days of being triggered, and that the resulting emission reductions generally occur within one year of the triggering event. Under the Draft Revised Contingency Measure Guidance, in instances where there are insufficient contingency measures available to achieve the recommended amount of emissions reductions within one year of the triggering event, the EPA believes that contingency measures that provide reductions within up to two years of the triggering event would be appropriate to consider towards achieving the recommended amount of emissions reductions. The Draft Revised Contingency Measure Guidance does not alter the 60-day recommendation for the contingency measures to take initial effect.

If, after adequately evaluating additional control measures, the state is unable to identify contingency measures that would provide approximately one year's worth of emissions reductions, the Draft Revised Contingency Measure Guidance recommends that the state should provide a reasoned justification (referred to herein as an "infeasibility demonstration") that explains and documents how it has evaluated all existing and potential control measures relevant to the appropriate source categories and pollutants in the nonattainment area and has reached reasonable conclusions regarding whether such measures are feasible.<sup>60</sup>

As explained in the Draft Revised Contingency Measure Guidance, while the EPA notes that CAA section 172(c)(9) and section 182(c)(9) do not explicitly provide for consideration of whether specific measures are feasible, the Agency believes that it is reasonable to infer that the statute does not require control measures regardless of any technological or cost constraints whatsoever.<sup>61</sup> It is more reasonable to interpret the contingency measure requirement not to require air agencies to adopt and impose infeasible measures. The statutory provisions applicable to other nonattainment area plan control measure requirements, including RACM/RACT (for ozone and PM), best available control measure (BACM)/best available control technology (BACT) (for PM), and most stringent measures (MSM) (for PM), allow air agencies to exclude

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<sup>60</sup> Draft Revised Contingency Measure Guidance, p. 29.

<sup>61</sup> Id.

certain control measures that are deemed unreasonable or infeasible (depending on the requirement). For example, the MSM provision in CAA section 188(e) requires plans to include “the most stringent measures that are included in the implementation plan of any state or are achieved in practice in any state, and can feasibly be implemented in the area.” The EPA considers it reasonable to conclude that Congress similarly did not expect air agencies to satisfy the contingency measure requirement with infeasible measures. Thus, the EPA anticipates that a demonstrated lack of feasible measures would be a reasoned justification for adopting contingency measures that only achieve a lesser amount of emission reductions.

#### **IV. EPA Review of San Joaquin Valley Contingency Measures**

We provide our review of two specific contingency measures – the Residential Wood Burning Contingency Measure and the Rural Open Areas Contingency Measure – in sections IV.A and IV.B of this document, respectively. As noted previously, we are reviewing and proposing approval of a third contingency measure, the Smog Check Contingency Measure,<sup>62</sup> in a separate rulemaking;<sup>63</sup> however, we provide a summary of the Smog Check Contingency Measure in section IV.C for informational purposes. Because we are proposing approval of the contingency measures, we take into account the measures’ anticipated emission reductions in our evaluation of the SJV PM<sub>2.5</sub> Contingency Measure SIP, which we present in section V of this proposed rule.

##### *A. Residential Wood Burning Contingency Measure*

###### 1. Background and Regulatory History

Residential wood burning includes wood-burning heaters (i.e., woodstoves, pellet stoves, and wood-burning fireplace inserts), which are used primarily for heat generation, and wood-burning fireplaces, which are used primarily for aesthetic purposes. All of these devices emit

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<sup>62</sup> CARB, “California Smog Check Contingency Measure State Implementation Plan Revision,” release date September 15, 2023, (“Smog Check Contingency Measure”).

<sup>63</sup> EPA, “Air Plan Revision; California; Motor Vehicle Inspection and Maintenance Program Contingency Measure,” Proposed rule, published in this *Federal Register*.

direct PM<sub>2.5</sub> and NO<sub>x</sub>. However, wood-burning heaters, that are certified under the EPA's New Source Performance Standards (NSPS) emit lower levels of PM<sub>2.5</sub> compared to wood-burning fireplaces and non-certified heaters when properly installed, operated, and maintained.

Residential wood-burning is included within the "Residential Fuel Combustion" emissions inventory category within the 2018 PM<sub>2.5</sub> Plan's emissions inventories. In the 2018 PM<sub>2.5</sub> Plan, the District estimates emissions of 2.82 tons per day (tpd) of PM<sub>2.5</sub> and 0.42 tpd NO<sub>x</sub> (annual average) specifically from residential wood burning for each year from 2017 onward. However, these estimates do not account for the effect of 2019 amendments to Rule 4901, discussed in the following section of this document.

Rule 4901 ("Wood Burning Fireplaces and Wood Burning Heaters") establishes requirements for the sale/transfer, operation, and installation of wood-burning devices and on the advertising of wood for sale intended for burning in a wood-burning fireplace, wood-burning heater, or outdoor wood-burning device within the San Joaquin Valley. One of the most effective ways to reduce wintertime smoke is a curtailment program that restricts use of wood-burning heaters and fireplaces on days that are conducive to buildup of PM concentrations (i.e., days where ambient PM<sub>2.5</sub> and/or PM<sub>10</sub> concentrations are forecast to be above a particular level, known as a "curtailment threshold").

Rule 4901 includes a tiered mandatory curtailment program that establishes different curtailment thresholds based on the type of devices (i.e., registered clean-burning devices<sup>64</sup> vs. unregistered devices) and different counties (i.e., hot spot vs. non-hot spot). During a Level One Episodic Wood Burning Curtailment, operation of wood-burning fireplaces and other unregistered wood-burning heaters or devices is prohibited, but properly operated, registered wood-burning heaters may be used.<sup>65</sup> During a Level Two Episodic Wood Burning Curtailment,

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<sup>64</sup> In order to be registered, a device must either be certified under the NSPS at time of purchase or installation and at least as stringent as Phase II requirements or be a pellet-fueled wood burning heater exempt from EPA certification requirements at the time of purchase or installation (Rule 4901, section 5.9.1). The rule includes requirements for documentation and inspection to verify compliance with these standards (Rule 4901, sections 5.9.2 and 5.10).

<sup>65</sup> Rule 4901, section 5.7.1.

operation of any wood-burning device is prohibited.<sup>66</sup> However, the rule includes an exemption from the curtailment provisions for (1) locations where piped natural gas service is not available and (2) residences for which a wood-burning fireplace or wood-burning heater is the sole available source of heat.<sup>67</sup>

In order to implement the curtailment program under Rule 4901, the District develops daily air quality forecasts, based on EPA and CARB guidance, which include a projection of the maximum PM<sub>2.5</sub> concentration in each county for the following day.<sup>68</sup> District staff then compare this maximum county PM<sub>2.5</sub> concentration forecast with the curtailment thresholds in Rule 4901. If a county’s PM<sub>2.5</sub> forecast exceeds the applicable threshold, then the District’s Air Pollution Control Officer declares a curtailment for the county for the following day.

In 2019, the District lowered the curtailment thresholds in Madera, Fresno, and Kern counties, which the District identified as “hot spot” counties, because they were “either new areas of gas utility or areas deemed to have persistently poor air quality.”<sup>69</sup> Table 1 presents the residential curtailment thresholds in Rule 4901, as revised in 2019.

**Table 1: Residential Wood Burning Curtailment Thresholds in Rule 4901 (as amended in 2019)**

Episodic Wood Burning Curtailment levels	Hot Spot Counties (Madera, Fresno, and Kern)	Non-Hot Spot Counties (San Joaquin, Stanislaus, Merced, Kings, and Tulare)
Level One (No Burning Unless Registered)	12 µg/m <sup>3</sup>	20 µg/m <sup>3</sup>
Level Two (No Burning for All)	35 µg/m <sup>3</sup>	65 µg/m <sup>3</sup>

The 2019 revision by the District also added a provision to the rule to operate as a contingency measure, which would lower the curtailment thresholds for any county that failed to attain the applicable standards to levels consistent with current thresholds for hot spot counties.

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<sup>66</sup> Rule 4901, section 5.7.2.

<sup>67</sup> Rule 4901, section 5.7.4.

<sup>68</sup> Email dated October 9, 2019, from Jon Klassen, SJVUAPCD to Meredith Kurpius, EPA Region IX, Subject: “RE: Info to support Rule 4901.”

<sup>69</sup> 2018 PM<sub>2.5</sub> Plan, Appendix J, 60.

However, the EPA disapproved this provision because it did not meet all of the CAA requirements for contingency measures.<sup>70</sup> Specifically, it did not address three of the four required triggers for contingency measures in 40 CFR 51.1014(a) and was not structured to achieve any additional emissions reductions if the EPA found that the monitoring locations in the “hot spot” counties (i.e., Fresno, Kern, or Madera) were the only counties in the San Joaquin Valley that are violating the applicable PM<sub>2.5</sub> NAAQS as of the attainment date.<sup>71</sup> In addition, with respect to the 1997 annual PM<sub>2.5</sub> NAAQS in particular, the EPA also disapproved the contingency provision in Rule 4901 because the EPA was concurrently disapproving the RFP and attainment demonstrations and, thus, was unable to determine whether the emissions reductions from the contingency provision were in fact surplus to the reductions that would be needed to provide for RFP and attainment for the 1997 annual PM<sub>2.5</sub> NAAQS in the SJV.<sup>72</sup> Accordingly, the SIP-approved version of Rule 4901 does not include any contingency provision.

## 2. Summary of State Submission

On May 18, 2023, the District amended the contingency measure in section 5.7.3 of Rule 4901, and CARB submitted the amended rule as part of the June 8, 2023 SIP Submission. The contingency measure would be triggered by a final determination by the EPA that the District failed to meet one or more of the following triggering events for the applicable PM<sub>2.5</sub> NAAQS:

- 1) Any Reasonable Further Progress requirement;
- 2) Any quantitative milestone;
- 3) Submission of a quantitative milestone report; or
- 4) Attainment of the applicable PM<sub>2.5</sub> NAAQS by the applicable attainment date.

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<sup>70</sup> 86 FR 67329, 67338 (for the 1997 annual PM<sub>2.5</sub> NAAQS) and 86 FR 67343, 67345 (for the 2006 24-hour PM<sub>2.5</sub> NAAQS and 2012 annual PM<sub>2.5</sub> NAAQS).

<sup>71</sup> Id. See also 86 FR 38652, 38669 (proposed rule on contingency measures element for the 1997 annual PM<sub>2.5</sub> NAAQS) and 86 FR 49100, 49125 and 49133-49134 (proposed rule on contingency measures element for the 2012 annual PM<sub>2.5</sub> NAAQS and 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively).

<sup>72</sup> 86 FR 67329, 67338.

Following the first such triggering event, the measure would lower the thresholds for the non-hot spot counties to the current thresholds for hot spot counties (i.e., from 20  $\mu\text{g}/\text{m}^3$  to 12  $\mu\text{g}/\text{m}^3$  for unregistered devices; and from 65  $\mu\text{g}/\text{m}^3$  to 35  $\mu\text{g}/\text{m}^3$  for registered devices). Following the second such event, the measure would further lower the threshold for unregistered devices in all counties of the San Joaquin Valley from 12  $\mu\text{g}/\text{m}^3$  to 11  $\mu\text{g}/\text{m}^3$ .

The District estimates that the Residential Wood Burning Contingency Measure for the first triggering event would achieve annual average emissions reductions of 0.5793 tpd direct  $\text{PM}_{2.5}$  and 0.0817 tpd  $\text{NO}_x$  in the SJV and the second triggering event would achieve additional reductions of 0.1078 tpd direct  $\text{PM}_{2.5}$  and 0.0148 tpd  $\text{NO}_x$ .<sup>73</sup>

### 3. EPA Evaluation

Through the revisions adopted by the District to Rule 4901 on May 18, 2023, the District has corrected the deficiencies in the contingency provision of Rule 4901 that we identified in our November 26, 2021 final actions. Namely, the contingency provision in the rule (section 5.7.3) has been revised to address all the determinations for which contingency measures are required under 40 CFR 51.1014(a) and has been revised to achieve emissions reductions under all circumstances, i.e., if triggered by one of the specific EPA determinations. In addition, we find that the contingency provision in section 5.7.3 of Rule 4901 is surplus to the RFP and attainment demonstrations for the annual 1997  $\text{PM}_{2.5}$  NAAQS based on the conclusions in our recent final action approving the RFP and attainment demonstrations in the State's 15  $\mu\text{g}/\text{m}^3$  SIP Revision.<sup>74</sup>

In our previous actions, we found that the contingency provision in Rule 4901 met the other specific criteria used to evaluate contingency measures.<sup>75</sup> Specifically, the contingency provision in Rule 4901 (the Residential Wood Burning Contingency Measure) is structured to be both conditional and prospective, to be implemented quickly following a triggering event (i.e.,

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<sup>73</sup> SJV  $\text{PM}_{2.5}$  Contingency Measure SIP, p. C-15.

<sup>74</sup> EPA, "Air Quality State Implementation Plans; Approvals and Promulgations: California; 1997 Annual Fine Particulate Matter Serious and Clean Air Act Section 189(d) Nonattainment Area Requirements; San Joaquin Valley, CA," Final rule, signed December 5, 2023.

<sup>75</sup> See, e.g., 86 FR 38652, 38669.

within 60 days) and to be implemented without significant further action by the State or the EPA. The revisions to section 5.7.3 of Rule 4901 that were adopted on May 18, 2023 do not affect those features of the contingency provision, and thus we propose to re-affirm those findings in this proposed rule.

We also note that the contingency provisions do not require the replacement or installation of an emissions control device and can therefore achieve emission reductions upon the rule taking effect. For example, if the EPA were to determine that the San Joaquin Valley failed to attain a given  $PM_{2.5}$  NAAQS, effective in July of a given year, the more stringent curtailment thresholds would take effect in September of that year, prior to the seasonal start of the No Burn Day program on November 1<sup>st</sup>. Thus, the emission reductions from the Residential Wood Burning Contingency Measure would be achieved within one year of the triggering event. Based on our review of the contingency provisions, as revised, we propose to re-affirm those findings.

Contingency measures must also be designed to provide emissions reductions (if triggered) that are not otherwise required to meet other attainment plan requirements and not relied upon to demonstrate RFP and attainment. In this regard, we note that none of the SJV plans for the 1997 annual, 2006 24-hour, and 2012 annual  $PM_{2.5}$  NAAQS relied upon the contingency provision in Rule 4901 to meet any plan element (other than the contingency measure element) and that none of the plans relied on the related emissions reductions from the contingency provision to provide for RFP or attainment. Based on our previous approvals of the San Joaquin Valley plans for the 2006 24-hour  $PM_{2.5}$  NAAQS in 2020 and 2012 annual  $PM_{2.5}$  NAAQS in 2021,<sup>76</sup> and the recent approval of the San Joaquin Valley plan for the 1997 annual  $PM_{2.5}$  NAAQS, including the various plan elements such as the BACM, RFP, and attainment demonstrations, we find that the Residential Wood Burning Contingency Measure is not

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<sup>76</sup> 85 FR 44192 and 86 FR 67343.

otherwise required for these PM<sub>2.5</sub> NAAQS and that the associated emissions reductions would be surplus to the PM<sub>2.5</sub>-related RFP and attainment needs of the San Joaquin Valley.

Therefore, for the reasons provided in the preceding paragraphs, we propose to approve Rule 4901, as revised, because we find that the Residential Wood Burning Contingency Measure set forth in section 5.7.3 of the rule now meets all the applicable requirements for a contingency measure for the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS.

Lastly, we reviewed the emissions reduction estimates for the Residential Wood Burning Contingency Measure that were prepared by the District and included in Appendix C (“Emission Reduction Analysis for Rule 4901”) of the SJV PM<sub>2.5</sub> Contingency Measure SIP and find the estimates to be reasonable and adequately documented. As described in Appendix C of the SJV PM<sub>2.5</sub> Contingency Measure SIP, the District has estimated the reductions from the two triggering events provided for in the Residential Wood Burning Contingency Measure by taking into account many different factors, such as the number of fireplaces and wood stoves in the individual counties within the San Joaquin Valley, the different types of wood stoves (registered and unregistered, certified and uncertified), and the number of additional curtailment days under various scenarios, among other factors. Taking into account these various factors, the District estimates the Residential Wood Burning Contingency Measure would achieve annual average emissions reductions of 0.5793 tpd direct PM<sub>2.5</sub> and 0.0817 tpd NO<sub>x</sub> in the SJV following the first triggering event and additional reductions of 0.1078 tpd direct PM<sub>2.5</sub> and 0.0148 tpd NO<sub>x</sub> following the second triggering event.

Because we are proposing to find that the Residential Wood Burning Contingency Measure meets the requirements for individual contingency measures, the associated emissions reductions can be taken into account by the EPA when determining whether CARB and the District have met the requirements for the San Joaquin Valley as a whole with respect to the contingency measure SIP requirements of CAA section 172(c)(9) and 40 CFR 51.1014 for PM<sub>2.5</sub>

nonattainment areas. Section V of this document presents our evaluation of the SJV PM<sub>2.5</sub> Contingency Measure SIP for compliance with these requirements for the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS, and, as part of that evaluation, we have taken into account the District's estimates of emissions reductions from the Residential Wood Burning Contingency Measure.

### *B. Rural Open Areas Contingency Measure*

#### 1. Background and Regulatory History

In areas where there is open, uncovered land, a natural crust will form and minimize dust emissions. However, activities such as earthmoving activities, material dumping, weed abatement, and vehicle traffic will disturb otherwise naturally stable land and allow windblown fugitive dust emissions to occur.

The District adopted fugitive dust control requirements in Regulation VIII (containing the 8000 series rules) on November 15, 2001, to address RACM/RACT and BACM/BACT attainment plan requirements for the 1987 PM<sub>10</sub> NAAQS.<sup>77</sup> The EPA found that new provisions in Regulation VIII “significantly strengthened” the prior existing rules by tightening standards, covering more activities, and adding more requirements to control dust-producing activities.<sup>78</sup> Subsequently, the District adopted amendments to Regulation VIII on August 19, 2004, and September 16, 2004, that the EPA approved into the San Joaquin Valley portion of the California SIP in 2006.<sup>79</sup> More recently the EPA has reviewed Regulation VIII for RACM/RACT,

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<sup>77</sup> Regulation VIII includes eight rules. Rule 8011 (“General Requirements”) provides definitions and the general requirements on which the seven other rules rely. In turn, those seven rules apply to different sources of fugitive windblown dust based on activity type. They include Rule 8021 (“Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities”), Rule 8031 (“Bulk Materials”), Rule 8041 (“Carryout and Trackout”), Rule 8051 (“Open Areas”), Rule 8061 (“Paved and Unpaved Roads”), Rule 8071 (Unpaved Vehicle/Equipment Traffic Area”), and Rule 8081 (“Agricultural Sources”). In this proposed rule, the EPA proposes to approve Rule 8051, as amended to include a contingency provision, as a revision to the California SIP.

<sup>78</sup> 67 FR 15345, 15346-15447 (April 1, 2002) (proposed rule on 2001 version of Regulation VIII).

<sup>79</sup> 71 FR 8461 (February 17, 2006).

BACM/BACT, and MSM requirements in acting on the San Joaquin Valley plan for the 2006 24-hour PM<sub>2.5</sub> NAAQS.<sup>80</sup>

Among the rules of Regulation VIII, Rule 8051 (“Open Areas”) applies to vacant portions of residential and commercial lots and contiguous parcels and the 2004 amendments added applicability thresholds for rural and urban areas required to meet both the conditions for a stabilized surface (defined in Rule 8011) and a 20% opacity standard. Rule 8051 applies to any open area having 0.5 acres or more within urban areas, or 3.0 acres or more within rural areas, that contains at least 1,000 square feet of disturbed surface area.<sup>81</sup> In addition, under Rule 8051, upon evidence of vehicle trespass, owners/operators must apply a measure(s) that effectively prevents access to the lot. Rule 8051 does not apply to agricultural areas, which are subject to other fugitive dust controls such as those under Rule 4550 (“Conservation Management Practices”) and Rule 8081 (“Agricultural Sources”).

## 2. Summary of State Submission

On September 21, 2023, the District adopted a new contingency measure in section 7.0 of District Rule 8051 (referred to herein as the “Rural Open Areas Contingency Measure”), and CARB submitted Rule 8051, as amended, to include the Rural Open Areas Contingency Measure, as a supplement to the SJV PM<sub>2.5</sub> Contingency Measure SIP. The Rural Open Areas Contingency Measure would be triggered by a final determination by the EPA that the District failed to meet one or more of the following triggering events for the applicable PM<sub>2.5</sub> NAAQS:

- 1) Any Reasonable Further Progress requirement;
- 2) Any quantitative milestone;
- 3) Submission of a quantitative milestone report; or
- 4) Attainment of the applicable PM<sub>2.5</sub> NAAQS by the applicable attainment date.

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<sup>80</sup> See, e.g., 85 FR 17382, 17431 (March 27, 2020) (proposal on BACM/BACT and MSM for the 2006 24-hour PM<sub>2.5</sub> NAAQS); and EPA Region IX, “Technical Support Document, EPA Evaluation of BACM/MSM, San Joaquin Valley PM<sub>2.5</sub> Plan for the 2006 PM<sub>2.5</sub> NAAQS,” February 2020.

<sup>81</sup> Rule 8051, section 2.1.

The Rural Open Areas Contingency Measure would lower the applicability threshold for rural open areas from 3.0 acres to 1.0 acres, thereby reducing windblown fugitive dust, including the direct PM<sub>2.5</sub> portion of such dust emissions. The State estimates that the newly subject total acreage would be 18,816 acres. The Rural Open Areas Contingency Measure would be effective 60 days after an EPA determination under 40 CFR 51.1014(a) that triggers contingency measures. At such time, Rule 8051 would require any rural open area having 1.0 acre or more and containing at least 1,000 square feet of disturbed surface area (notwithstanding exemptions in section 4.0 of the rule) to meet section 5.0 of the rule, which requires that:

Whenever open areas are disturbed or vehicles are used in open areas, an owner/operator shall implement one or a combination of control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.<sup>82</sup>

Table 8051-1 contains the following control measures for open areas:

A. Open Areas:

Implement, apply, maintain, and reapply if necessary, at least one or a combination of the following control measures to comply at all times with the conditions for a stabilized surface and limit VDE to 20% opacity as defined in Rule 8011:

- A1. Apply and maintain water or dust suppressant(s) to all unvegetated areas; and/or
- A2. Establish vegetation on all previously disturbed areas; and/or
- A3. Pave, apply and maintain gravel, or apply and maintain chemical/organic stabilizers/suppressant(s).

B. Vehicle Use in Open Areas:

Upon evidence of trespass, prevent unauthorized vehicle access by:

Posting 'No Trespassing' signs or installing physical barriers such as fences, gates, posts, and/or other appropriate barriers to effectively prevent access to the area.

The Rural Open Areas Contingency Measure is narrowed by the addition of a new exemption in section 4.2 of Rule 8051 that exempts owners or operators of rural parcels between

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<sup>82</sup> VDE is Visible Dust Emissions.

1.0 acres to 3.0 acres that implement fire prevention activities required by a Federal, State, or local agency by mowing or cutting (if three inches or more of stubble remains after mowing or cutting) or discing (if no more than two passes are made).

The District estimates that the Rural Open Burning Contingency Measure would achieve annual average emissions reductions of 0.008 tpd direct PM<sub>2.5</sub>.<sup>83</sup>

### 3. EPA Evaluation

As discussed further in the EPA's technical support document that documents our evaluation of amended Rule 8051,<sup>84</sup> we find that the Rural Open Areas Contingency Measure now included as section 7.0 of Rule 8051 meets the applicable requirements for contingency measures. First, we note that the expansion of the control requirements to rural parcels between one (1.0) to three (3.0) acres under section 7.0 of Rule 8051 is conditional and prospective by design and is not required to meet existing control requirements (i.e., RACM or BACM)<sup>85</sup> nor relied upon by the area as part of the area's PM<sub>2.5</sub> RFP or attainment demonstrations. Moreover, the exemption for owners or operators of certain rural parcels of 1.0 to 3.0 acres in size from the requirements of the rule that would otherwise be included if the Rural Open Areas Contingency Measure were triggered is narrowly drawn and limited such that the exemption will have essentially no impact on the emissions reductions expected from implementation of the Rural Open Areas Contingency Measure. This is because the exemption applies only to owners and operators acting in response to a Federal, State, or local agency that is requiring implementation of fire prevention activities and is further limited by specifying the methods that must be followed to be covered by the exemption.

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<sup>83</sup> SJVUAPCD, Final Draft Staff Report, "Proposed Amendments to Rule 8051 (Open Areas)," September 21, 2023, p. B-7.

<sup>84</sup> EPA Region IX, "Technical Support Document for EPA's Rulemaking for the California State Implementation Plan, San Joaquin Valley Air Pollution Control District Rule 8051 ('Open Areas')," December 2023.

<sup>85</sup> As noted previously, the RACM and BACM demonstrations that the EPA has approved for the 1997 annual, 2006 24-hour, and the 2012 annual PM<sub>2.5</sub> NAAQS included review of Regulation VIII, including Rule 8051. See 85 FR 44192, 86 FR 67343, and EPA, "Air Quality State Implementation Plans; Approvals and Promulgations: California; 1997 Annual Fine Particulate Matter Serious and Clean Air Act Section 189(d) Nonattainment Area Requirements; San Joaquin Valley, CA," Final rule, signed December 5, 2023.

Second, the Rural Open Areas Contingency Measure includes a trigger mechanism (“...final determination by EPA that the District has failed to meet any of the following elements for any of the PM<sub>2.5</sub> NAAQS...”) that addresses all of the specific types of determinations listed in 40 CFR 51.1014(a). Third, the Rural Open Areas Contingency Measure specifies a schedule for timely implementation (“Upon 60 days after the issuance of a final determination...”). While the extension of the control requirements to rural parcels between 1.0 to 3.0 acres under section 7.0 is self-executing (i.e., does not require additional rulemaking), the District will need as a practical matter to provide notice to the affected owners/operators that the contingency measure has been triggered. However, we do not find that providing such notice constitutes “further action” by the state for the purposes of CAA section 172(c)(9). Lastly, given the nature of the controls required under Rule 8051 (such as watering, establishing vegetation, applying gravel, or fencing (if needed)), we find that the associated emissions reductions from implementation of the Rural Open Areas Contingency Measure can be achieved within a year of the triggering event.

Therefore, for the reasons provided in the preceding paragraphs, we propose to approve Rule 8051, as revised, because we find that the Rural Open Areas Contingency Measure meets all the applicable requirements for a contingency measure for the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS.

We have also reviewed the emissions reduction estimates for the Rural Open Areas Contingency Measure that were prepared by the District and included in Appendix B (“Emission Reduction and Cost Effectiveness Analysis for Proposed Amendments to Rule 8051 (Open Areas)”) of the Final Draft Staff Report and find the estimates to be reasonable and adequately documented. As documented in Appendix B of the Final Draft Staff Report, the District took into account county-specific parcel size data, among other relevant factors to develop the emissions reduction estimate of 0.008 tpd of direct PM<sub>2.5</sub> for the Rural Open Areas Contingency Measure.<sup>86</sup>

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<sup>86</sup> SJVUAPCD, Final Draft Staff Report, “Proposed Amendments to Rule 8051 (Open Areas),” September 21, 2023, p. B-7. The District’s estimate compares favorably with the EPA’s own estimate of 0.01 tpd for essentially the same

Because we are proposing to find that the Rural Open Areas Contingency Measure meets the requirements for individual contingency measures, the associated emissions reductions can be taken into account by the EPA when determining whether CARB and District have met the requirements for the San Joaquin Valley as a whole with respect to the contingency measure requirements of CAA section 172(c)(9) and 40 CFR 51.1014 for PM<sub>2.5</sub> nonattainment areas. Section V of this document presents our evaluation of the SJV PM<sub>2.5</sub> Contingency Measure SIP for compliance with these requirements for the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS, and, as part of that evaluation, we have taken into account the District's estimates of emissions reductions from the Rural Open Areas Contingency Measure.

### *C. Smog Check Contingency Measure*

The general purpose of motor vehicle inspection and maintenance (I/M) programs is to reduce emissions from in-use motor vehicles in need of repairs and thereby contribute to state and local efforts to improve air quality and to attain the NAAQS. California has operated an I/M program, also known as the "Smog Check" program, in certain areas of the state for over 30 years. Under the current California Smog Check program, certain vehicles are exempt from the biennial inspection requirement, including vehicles eight or fewer model years old.

On November 13, 2023, CARB submitted a third contingency measure for San Joaquin Valley for the PM<sub>2.5</sub> NAAQS, which we refer to herein as the Smog Check Contingency Measure. Under the Smog Check Contingency Measure, CARB would, within 30 days of the effective date of an EPA determination that an applicable triggering event has occurred for San Joaquin Valley for the PM<sub>2.5</sub> NAAQS, transmit a letter to the California Bureau of Automotive Repair and Department of Motor Vehicles that, in effect, would narrow the newer vehicle exemption from eight or fewer model years old to seven or fewer model years old throughout the

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contingency measure in EPA's proposed PM<sub>2.5</sub> contingency measure FIP for San Joaquin Valley. 88 FR 53431, 53444.

San Joaquin Valley.<sup>87</sup> CARB estimates that the Smog Check Contingency Measure would, after the first triggering event and adjusting slightly for the effect on foregone emission reductions from Carl Moyer funding,<sup>88</sup> achieve annual average emission reductions of 0.113 tpd NO<sub>x</sub> for the 1997 annual PM<sub>2.5</sub> NAAQS, 0.116 tpd NO<sub>x</sub> for the 2006 24-hour PM<sub>2.5</sub> NAAQS, and 0.083 tpd NO<sub>x</sub> for the 2012 annual PM<sub>2.5</sub> NAAQS in the San Joaquin Valley.<sup>89</sup>

In a separate proposed rule published in this *Federal Register*, we are proposing to approve the Smog Check Contingency Measure and, therefore, its associated emissions reductions can be taken into account by the EPA when determining whether the State and District have met the contingency measure requirements of CAA section 172(c)(9) and 40 CFR 51.1014 for PM<sub>2.5</sub> nonattainment areas for the San Joaquin Valley as a whole. Section V of this document presents our evaluation of the SJV PM<sub>2.5</sub> Contingency Measure SIP for compliance with these requirements for the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS, and as part of that evaluation, we have taken into account CARB's estimates of emissions reductions from the Smog Check Contingency Measure.

## **V. EPA Review of San Joaquin Valley PM<sub>2.5</sub> Contingency Measure Plan Element**

### *A. Background and Regulatory History*

In light of the nonattainment designation for San Joaquin Valley for the PM<sub>2.5</sub> NAAQS, the State of California was required under CAA section 172(c)(9) and 40 CFR 51.1014 to adopt and submit a SIP revision providing for implementation of contingency measures to take effect in the San Joaquin Valley if the EPA determines that the area has failed to meet an RFP

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<sup>87</sup> Smog Check Contingency Measure, section 4. The Smog Check Contingency Measure is structured to further narrow the newer vehicle exemption by another year upon a second triggering event.

<sup>88</sup> The Carl Moyer Program distributes incentive grants to fund the incremental cost of cleaner-than-required engines, equipment, and other technology. The slight adjustment to emission reductions mentioned results from a decrease in funding to the Carl Moyer program. If the contingency measure were triggered, fewer vehicles would be exempt from the Smog Check program, and thus fewer vehicles would be subject to the Smog Check abatement fee (which is only assessed on vehicles exempted from Smog Check testing). That fee provides funding to the Carl Moyer Program. For more information on the program, see <https://ww2.arb.ca.gov/carl-moyer-program-apply>.

<sup>89</sup> Smog Check Contingency Measure, Table 28 and Table 31.

requirement, failed to submit a quantitative milestone report, failed to meet a quantitative milestone, or failed to attain the PM<sub>2.5</sub> NAAQS by the applicable attainment date.

In 2019, as discussed in section I.B of this document, CARB submitted a SIP revision that included contingency measure plan elements for San Joaquin Valley for the 1997 annual and 24-hour, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS. The contingency measure plan elements relied on an earlier version of the Residential Wood Burning Contingency Measure and justified reliance on that single measure notwithstanding the fact that the measure alone would not achieve emissions reductions equivalent to one year's worth of RFP by reference to larger planning context for the area and related surplus emissions reductions expected to be achieved from already-implemented control measures.

In 2021, the EPA disapproved the contingency measure plan elements for the applicable PM<sub>2.5</sub> NAAQS because the plan elements did not include a contingency measure that addressed all four triggering events for the PM<sub>2.5</sub> NAAQS under 40 CFR 51.1014; that would ensure that emissions reductions would be achieved, once triggered; or, for the 1997 annual PM<sub>2.5</sub> NAAQS, that would be surplus to the area's needs for RFP and attainment.<sup>90</sup> We proposed disapproval of the contingency measure elements before the Ninth Circuit's *Assoc. of Irrigated Residents (AIR) v. EPA* decision<sup>91</sup> was published and, thus, did not identify the contingency measure elements' reliance on surplus emissions reductions from already-implemented measures (to justify adoption of a single contingency measure which would not, on its own, achieve one year's worth of RFP) as a specific deficiency.

### *B. Summary of State Submission*

In response to the disapprovals of the previous contingency measure elements, the District and CARB prepared the SJV PM<sub>2.5</sub> Contingency Measure SIP, which CARB adopted as

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<sup>90</sup> 86 FR 38652, 38669-38670; and 86 FR 49100, 49124-49125 and 49133-49134.

<sup>91</sup> In *AIR v. EPA*, the Ninth Circuit held that, under the EPA's current guidance, the surplus emissions reductions from already-implemented measures cannot be relied upon to justify the approval of a contingency measure that would achieve far less than one year's worth of RFP as sufficient by itself to meet the contingency measure requirements of CAA sections 172(c)(9) and 182(c)(9) for the nonattainment area. 10 F.4th at 946-47.

part of the California SIP and submitted for EPA approval on June 8, 2023. In the SJV PM<sub>2.5</sub> Contingency Measure SIP, the District and CARB present their evaluation of potential contingency measures, amendments to the previous contingency provisions in the District’s residential wood burning rule (i.e., the Residential Wood Burning Contingency Measure), a commitment to evaluate potential contingency provisions for Rule 8051 (“Open Areas”), analysis of one year’s worth of emission reductions, and infeasibility demonstrations for rejecting other potential contingency measures. In light of the *AIR v. EPA* decision, the District and CARB do not justify the selection of the contingency measures on the basis of surplus emissions reductions from already-implemented measures, as had been the case previously, but rather “due to a scarcity of available, qualifying measures,” and the time period in which emission reductions should occur.<sup>92</sup> Subsequent to the submission of the SJV PM<sub>2.5</sub> Contingency Measure SIP, the District and CARB have supplemented the contingency measure elements for the applicable PM<sub>2.5</sub> NAAQS with the adoption and submission of two additional contingency measures – the Rural Open Areas Contingency Measure and the Smog Check Contingency Measure.

#### 1. General Considerations

“General Considerations,” for the purposes of this proposed action, includes identification of the relevant pollutants, the use of contingency measures for more than one triggering event and for more than one NAAQS, and the magnitude of emissions reductions. Contingency measure feasibility analyses are addressed in a separate subsection.

##### *a. PM<sub>2.5</sub> and PM<sub>2.5</sub> Precursors*

CARB and the District have concluded, based on CARB modeling, that sulfur oxides (SO<sub>x</sub>), volatile organic compounds (VOCs), and ammonia are not significant precursors for PM<sub>2.5</sub> formation in the San Joaquin Valley. Therefore, their contingency measure submissions address sources of direct PM<sub>2.5</sub> and NO<sub>x</sub> emissions.

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<sup>92</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, p. 5.

*b. Using Same Contingency Measures for More Than One Triggering Event, NAAQS*

The contingency measures that CARB and the District rely upon in the SJV PM<sub>2.5</sub> Contingency Measure SIP are not limited to one PM<sub>2.5</sub> NAAQS, but rather cover all three of the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS (i.e., the same set of contingency measures has been submitted to address the contingency measure requirements for more than one PM<sub>2.5</sub> NAAQS).

*c. Magnitude of Emissions Reductions*

To evaluate the sufficiency of the Residential Wood Burning Contingency Measure with respect to the magnitude of emissions reductions that the contingency measures should achieve, the SJV PM<sub>2.5</sub> Contingency Measure SIP includes calculations of one year's worth of RFP for the relevant PM<sub>2.5</sub> NAAQS for the San Joaquin Valley. To do this, the District calculated the change in annual average emission reductions from the base year to the attainment year for the 1997 annual PM<sub>2.5</sub> NAAQS (from 2013 to 2023) and 2006 24-hour PM<sub>2.5</sub> NAAQS (from 2013 to 2024), and the outermost Moderate area RFP year for the 2012 annual PM<sub>2.5</sub> NAAQS (from 2013 to 2022), and divided those by the number of years between the base year and applicable attainment or RFP year. The State's estimates of one year's worth of RFP in the SJV PM<sub>2.5</sub> Contingency Measure SIP are as follows: 0.44 tpd direct PM<sub>2.5</sub> and 16.7 tpd NO<sub>x</sub> (for the 1997 annual PM<sub>2.5</sub> NAAQS); 0.58 tpd direct PM<sub>2.5</sub> and 18.4 tpd NO<sub>x</sub> (for the 2006 24-hour PM<sub>2.5</sub> NAAQS); and 0.46 tpd direct PM<sub>2.5</sub> and 15.3 tpd NO<sub>x</sub> (for the 2012 annual PM<sub>2.5</sub> NAAQS).<sup>93</sup>

Per the EPA's Draft Revised Contingency Measure Guidance, the SJV PM<sub>2.5</sub> Contingency Measure SIP also includes estimates of one year's worth of progress that were made by calculating one year's worth of RFP as a percentage of the base year emissions inventory and applying that percentage to the attainment year emissions inventory for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, and to the outermost Moderate area RFP year for the

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<sup>93</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 5-6; see "Step 1b" emissions estimates in the "Step 1" table for one year's worth of RFP.

2012 annual PM<sub>2.5</sub> NAAQS. The estimates of one year's worth of progress in the SJV PM<sub>2.5</sub> Contingency Measure SIP are as follows: 0.41 tpd direct PM<sub>2.5</sub> and 7.91 tpd NO<sub>x</sub> (for the 1997 annual PM<sub>2.5</sub> NAAQS); 0.52 tpd direct PM<sub>2.5</sub> and 6.66 tpd NO<sub>x</sub> (for the 2006 24-hour PM<sub>2.5</sub> NAAQS); and 0.43 tpd direct PM<sub>2.5</sub> and 8.65 tpd NO<sub>x</sub> (for the 2012 annual PM<sub>2.5</sub> NAAQS).<sup>94</sup>

CARB and the District present their comparison of emission reductions from the Residential Wood Burning Contingency Measure to those needed for one year's worth of progress in Table 17 of the SJV PM<sub>2.5</sub> Contingency Measure SIP.<sup>95</sup> They conclude that this contingency measure would achieve emission reductions of 0.69 tpd direct PM<sub>2.5</sub> and 0.1 tpd NO<sub>x</sub> (including reductions following both first and second triggering events) and that such reductions would exceed those needed for one year's worth of progress for direct PM<sub>2.5</sub> but would fall short of those needed for one year's worth of progress for NO<sub>x</sub>.

Noting the direct PM<sub>2.5</sub> surplus, CARB and the District then trade the surplus direct PM<sub>2.5</sub> emission reductions at a ratio of 6:1 (i.e., 6 tpd NO<sub>x</sub> for each excess 1 tpd direct PM<sub>2.5</sub>),<sup>96</sup> based on analyses in their 2021 "Progress Report and Technical Submittal for the 2012 PM<sub>2.5</sub> Standard San Joaquin Valley" ("2021 Progress Report").<sup>97</sup> CARB and the District note that direct PM<sub>2.5</sub> emission reductions are a more efficient and cost-effective way to reduce ambient PM<sub>2.5</sub> in the San Joaquin Valley than NO<sub>x</sub> emission reductions.<sup>98</sup> The report presented analysis of the relative effect of reducing 30% direct PM<sub>2.5</sub> (annual average) emissions versus 30% NO<sub>x</sub> (annual average) emissions on ambient annual average PM<sub>2.5</sub> concentrations (as modeled for 2024) at each regulatory monitoring site in the San Joaquin Valley using data from the precursor

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<sup>94</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 5-6; see the "Step 3" table for one year's worth of progress.

<sup>95</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, Table 17.

<sup>96</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 73-74.

<sup>97</sup> CARB and SJVUAPCD, "Progress Report and Technical Submittal for the 2012 PM<sub>2.5</sub> Standard San Joaquin Valley," October 19, 2021 ("2021 Progress Report"). See pages 34-38 for the State's "PM<sub>2.5</sub> Precursor Sensitivity Modeling Analysis and Trading Ratios." Transmitted to the EPA by letter dated October 20, 2021, from Richard W. Corey, Executive Officer, CARB, to Deborah Jordan, Acting Regional Administrator, EPA Region IX.

<sup>98</sup> 2021 Progress Report, p. 34.

sensitivity analyses in the 2018 PM<sub>2.5</sub> Plan.<sup>99</sup> CARB and the District examined several methods for calculating the ratio based on varying combinations of monitoring sites. They concluded that 6:1 was a conservative ratio as it was less than the average ratio for the two sites with the highest modeled (annual average) ambient PM<sub>2.5</sub> concentrations in 2025 (6.1:1), the average ratio of sites with modeled 2025 concentrations over 11.00 µg/m<sup>3</sup> (6.4:1), and the average ratio of sites with a 2020 design value over 12 µg/m<sup>3</sup> (6.6:1).<sup>100</sup> They also conclude that a ratio of 6:1 would be conservative as it was less than the 8.1:1 ratio for the modeled design value for the Bakersfield-Planz site (i.e., the site with the highest modeled 2025 concentration).

Applying this 6:1 trading ratio, CARB and the District estimate that, after achieving the full one year's worth of progress for direct PM<sub>2.5</sub> emission reductions, the shortfall of NO<sub>x</sub> emissions for one year's worth of progress would be as follows: 6.13 tpd (compared to 7.91 tpd for the 1997 annual PM<sub>2.5</sub> NAAQS), 5.54 tpd (compared to 6.66 tpd for the 2006 24-hour PM<sub>2.5</sub> NAAQS), and 6.99 tpd (compared to 8.65 tpd for the 2012 annual PM<sub>2.5</sub> NAAQS).<sup>101</sup> The NO<sub>x</sub> equivalent emissions reductions equate to a range of 17% to 23% of one year's worth of progress for NO<sub>x</sub>.

In light of the shortfall of NO<sub>x</sub> emissions reductions, the SJV PM<sub>2.5</sub> Contingency Measure SIP includes feasibility analyses by the District for stationary and area sources and by CARB for mobile sources to justify the reliance on a contingency measure that would not provide for one year's worth of progress (i.e., for NO<sub>x</sub>). We summarize the feasibility analyses prepared by the District and CARB in the following section of this document.

## 2. Contingency Measure Feasibility Analyses

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<sup>99</sup> See Appendix K ("Modeling Attainment Demonstration") of the 2018 PM<sub>2.5</sub> Plan, including Table 14 (annual average modeled emissions inventory) and Table 49 (precursor sensitivity analysis for annual average ambient PM<sub>2.5</sub> concentration in 2024).

<sup>100</sup> At the time, the modeled 2025 PM<sub>2.5</sub> concentrations corresponded to the attainment year in the State's Serious area plan for the 2012 annual PM<sub>2.5</sub> NAAQS, which was later withdrawn on October 27, 2022. Letter dated October 27, 2022, from Steven S. Cliff, Executive Officer, CARB, to Martha Guzman, Regional Administrator, EPA Region IX.

<sup>101</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, p. 74.

The District states that it has already implemented rules for sources that meet or go beyond federal requirements and that few measures remain to explore as contingency measures. The District describes the relative stringency of their stationary and area source measures by noting the EPA's 2020 approval of the State's demonstration of BACM and MSM for the 2006 24-hour PM<sub>2.5</sub> NAAQS; highlights the District's tighter limits for certain industrial sources compared to the EPA's national emission limits to address the interstate transport of air pollution; and describes the numerous regulatory measures and incentive-based measures adopted since and in fulfillment of the 2018 PM<sub>2.5</sub> Plan.<sup>102</sup>

More specifically, the District analyzed the wide range of stationary and area sources for contingency measure opportunities, including identification of potential control measures, analysis of the technological and economic feasibility of such measures, assessment of the time required to develop and implement such measures within 60 days and achieve emission reductions within one to two years, and discussion of whether the District could adopt such measures and secure EPA approval prior to the EPA promulgating a contingency measure FIP for PM<sub>2.5</sub> in the San Joaquin Valley. For the potential control measures identified through this process, the District further analyzed possible contingency measures for wood burning fireplaces and wood burning heaters, rural open areas, commercial charbroiling, almond harvesting, and oil and gas production combustion equipment. Based on this analysis, the District adopted the Residential Wood Burning Contingency Measure and concluded that the other possible contingency measures were infeasible or untimely but committed to further evaluate the rural open areas rule as a potential contingency measure. Subsequently, the District fulfilled the Agency's commitment to further evaluate the rural open areas rule and adopted the Rural Open Areas Contingency Measure to supplement the SJV PM<sub>2.5</sub> Contingency Measure SIP.

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<sup>102</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, section 4.1 ("Stringency of District's Regulatory Program"). See also 87 FR 20036 (April 6, 2022) (proposed rule for the interstate transport FIP for the 2015 ozone NAAQS); and 88 FR 36654 (June 5, 2023) (final rule for interstate transport FIP for the 2015 ozone NAAQS).

In turn, CARB states that its mobile source control programs often set the standard for other states to follow and that more than half of mobile source NO<sub>x</sub> emissions in the San Joaquin Valley are from primarily federally regulated sources, which limit opportunities for contingency measures that would achieve one year's worth of progress in emission reductions. CARB further notes that a relatively limited portion (of NO<sub>x</sub>) emissions are regulated by local air districts in California and that, even if discounting the emission reductions needed for contingency measures by primarily federally regulated emission sources, additional control measures to achieve the one year's worth of emission reductions are scarce or nonexistent.

CARB states that if such measures were identified, they would be adopted to improve air quality and help attain the NAAQS, rather than held in reserve as contingency measures, and that control measures to achieve large emission reductions often take longer than two years to implement – beyond the one- to two-year timeframe for achieving emission reductions for contingency purposes. For example, CARB states that the three largest NO<sub>x</sub> reduction measures committed to in the 2022 State SIP Strategy<sup>103</sup> rely on accelerated turnover of engines and trucks and shifting to zero-emission equipment, which is limited by infrastructure and equipment options. CARB further states that a central difficulty in considering contingency measures is that CARB has already committed to zero emission standards where feasible and as expeditiously as possible to fulfill goals established in California Executive Order N-79-20 for mobile sources ranging from light-duty cars by 2035 to heavy-duty trucks by 2045.<sup>104</sup>

More specifically, CARB analyzed all sources under its authority to identify potential contingency measures using three criteria, per CAA requirements, court decisions, and the EPA's Draft Revised Contingency Measure Guidance. First, CARB assessed whether the measure could be implemented within 60 days of a triggering event and emission reductions achieved within one to two years. Second, CARB assessed the technological and economic

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<sup>103</sup> CARB, "2022 State Strategy for the State Implementation Plan," adopted September 22, 2022, Chapter 5 ("State SIP Measures").

<sup>104</sup> Executive Department, State of California, Executive Order N-79-20, September 23, 2020.

feasibility of implementing the measure, particularly within the one- to two-year timeframe.

Third, CARB evaluated whether it could adopt the measure and secure EPA approval by the September 30, 2024 consent decree deadline for the EPA to promulgate a FIP or alternatively approve contingency measure SIP submissions meeting the contingency measure requirements.

Regarding mobile source contingency measures, CARB describes several challenges that limit the control measure options that would meet contingency measure requirements. For new engine standards, CARB states that engine manufacturers need lead time to “design, plan, certify, manufacture, and deploy cleaner engines.” For fleet regulations, CARB states that manufacturing must be mature to provide sufficient supply and that owners and operators must “plan, purchase, and deploy new, often zero-emission, equipment” that may involve changes to business operations and infrastructure. Based on the time required for implementing such measures, CARB concludes that new engine standards and fleet regulations are not appropriate for contingency measures.

Furthermore, CARB states that its regulations are technology-forcing, which requires time for industry to plan, develop, and implement new technologies, and that it is driving mobile sources to zero-emissions where feasible to achieve criteria, air toxic, and climate pollutant goals. Similarly, CARB argues that the technology-forcing and zero-emission-based nature of its mobile source regulations reduce or eliminate opportunities for contingency measure emission reductions. Lastly, CARB states that its full rulemaking process for most mobile source measures takes about five years to develop and adopt, which would not be possible prior to the September 30, 2024 consent decree deadline for the EPA to promulgate a FIP, or approve contingency measure SIP submissions meeting the contingency measure requirements.

CARB concludes that there are no feasible mobile source contingency measures for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS (as of the April 2023 public notice for the SJV PM<sub>2.5</sub> Contingency Measure SIP) yet continued to assess opportunities for feasible contingency measures. Per a June 2023 commitment letter by CARB’s Executive Officer, and as

further described in section IV.C of this proposed rule, CARB has since completed the development of and adopted the state-wide Smog Check Contingency Measure that complements the District contingency measures for residential wood burning and rural open areas.

### 3. Conclusion

Based on achieving the full one year's worth of progress for direct PM<sub>2.5</sub> emission reductions, a portion of one year's worth of progress for NO<sub>x</sub> emission reductions, and their contingency measure feasibility analyses, CARB and the District conclude that the SJV PM<sub>2.5</sub> Contingency Measure SIP, and related infeasibility demonstrations, and the Residential Wood Burning Contingency Measure fulfill the contingency measure requirements for the PM<sub>2.5</sub> NAAQS.<sup>105</sup>

#### *C. EPA Evaluation*

We propose to find that CARB and the District have corrected the specific deficiencies that we identified in the previously submitted contingency measure elements for the applicable PM<sub>2.5</sub> NAAQS and that were the bases for our previous disapprovals of the contingency measure element. Our proposed conclusion in this regard recognizes that the revised contingency measure plan elements for the applicable PM<sub>2.5</sub> NAAQS (SJV PM<sub>2.5</sub> Contingency Measure SIP) now includes contingency measures (Residential Wood Burning Contingency Measure, Rural Open Areas Contingency Measure, and the Smog Check Contingency Measure) that address all four triggering events for the PM<sub>2.5</sub> NAAQS under 40 CFR 51.1014, that have been structured to ensure emissions reductions, once triggered, and that are surplus to the RFP and attainment needs of the San Joaquin Valley for the 1997 annual PM<sub>2.5</sub> NAAQS.<sup>106</sup>

#### 1. General Considerations

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<sup>105</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, p. 74. As noted previously, the SJV PM<sub>2.5</sub> Contingency Measure SIP has been supplemented with two additional contingency measures (i.e., the Rural Open Areas Contingency Measure and the Smog Check Contingency Measure).

<sup>106</sup> With respect to the contingency measures being surplus to the RFP and attainment needs of the San Joaquin Valley for the 1997 annual PM<sub>2.5</sub> NAAQS, we are relying on the recent approval of the RFP and attainment demonstrations in the State's 15 µg/m<sup>3</sup> SIP Revision.

As stated previously, “General Considerations,” for the purposes of this proposed action, includes identification of the relevant pollutants, the use of contingency measures for more than one triggering event and for more than one NAAQS, and the magnitude of emissions reductions. We present our evaluation of the State’s contingency measure feasibility analyses in a separate subsection.

*a. PM<sub>2.5</sub> and PM<sub>2.5</sub> Plan Precursors*

Under the CAA, states are required to regulate not only direct emissions of PM<sub>2.5</sub> in an attainment plan, but also all PM<sub>2.5</sub> precursors. Under the EPA’s PM<sub>2.5</sub> SIP Requirements Rule, states must identify, adopt, and implement control measures, including control technologies, on sources of direct PM<sub>2.5</sub> emissions and sources of emissions of PM<sub>2.5</sub> plan precursors located in PM<sub>2.5</sub> nonattainment areas.<sup>107</sup> PM<sub>2.5</sub> plan precursors are those PM<sub>2.5</sub> precursors (which are sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, VOCs, and ammonia) that the state must regulate in the applicable attainment plan.<sup>108</sup> A state may elect to submit to the EPA precursor demonstrations for a specific nonattainment area in order to establish that regulation of one or more precursors is not necessary for attainment in the nonattainment area at issue.<sup>109</sup> If the EPA approves a comprehensive precursor demonstration that shows that emissions of a particular precursor does not contribute significantly to PM<sub>2.5</sub> levels that exceed the NAAQS in an area, then the state is not required to control emissions of the relevant precursor from existing sources in the current attainment plan.<sup>110</sup> Accordingly, the state would not need to address the precursor in order to meet attainment plan requirements, including RFP, in QMs and associated QM reports, or be required to adopt contingency measures to reduce the precursor at issue.<sup>111</sup>

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<sup>107</sup> See generally 40 CFR 51.1009(a) and 40 CFR 51.1010(a).

<sup>108</sup> 40 CFR 51.1000.

<sup>109</sup> 40 CFR 51.1006(a).

<sup>110</sup> 40 CFR 51.1006(a)(1)(iii).

<sup>111</sup> 40 CFR 51.1009(a)(4)(i).

For the San Joaquin Valley, as noted in section V.B.1 of this proposed rule, CARB and the District have concluded, based on CARB modeling, that SO<sub>x</sub>, VOCs, and ammonia are not significant precursors for PM<sub>2.5</sub> formation in the San Joaquin Valley.<sup>112</sup> The EPA has considered, and approved, the State's precursor demonstrations with respect to the 1997 annual, 2006 24-hour, and the 2012 annual PM<sub>2.5</sub> NAAQS in taking action on the SIP submissions applicable to each NAAQS.<sup>113</sup> Therefore, we agree with CARB and the District that the contingency measure submissions for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS must address sources of direct PM<sub>2.5</sub> and NO<sub>x</sub> emissions but do not need to address sources of SO<sub>x</sub>, VOCs, or ammonia.

For the 2006 24-hour PM<sub>2.5</sub> NAAQS, the EPA approved the comprehensive precursor demonstration that established that SO<sub>2</sub>, VOCs, and ammonia emissions do not contribute significantly to PM<sub>2.5</sub> levels that exceed the 2006 24-hour PM<sub>2.5</sub> NAAQS in the San Joaquin Valley.<sup>114</sup> In 2020, a petition for review before the Ninth Circuit Court of Appeals challenged the EPA's approval of the portions of the 2019 SIP submissions related to the 2006 24-hour PM<sub>2.5</sub> NAAQS. In 2021, the Court vacated the approval of aggregate commitments to the extent such commitments relied on inadequately funded incentive-based control measures and remanded to the EPA for further consideration of the aggregate commitments, and for further proceedings consistent with the decision, but denied the petition in all other respects.<sup>115</sup> The EPA's approval of the comprehensive precursor demonstration was not the subject of the court challenge. In light of the current circumstances surrounding these precursor demonstrations, the EPA agrees that direct PM<sub>2.5</sub> and NO<sub>x</sub> are the appropriate pollutants for which contingency measures are required in the San Joaquin Valley for the 2006 24-hour PM<sub>2.5</sub> NAAQS.

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<sup>112</sup> See, e.g., SJV PM<sub>2.5</sub> Contingency Measure SIP, Appendix G (Appendix C from the 2018 PM<sub>2.5</sub> Plan), p. C-12.

<sup>113</sup> EPA, "Air Quality State Implementation Plans; Approvals and Promulgations: California; 1997 Annual Fine Particulate Matter Serious and Clean Air Act Section 189(d) Nonattainment Area Requirements; San Joaquin Valley, CA," Final rule, signed December 5, 2023; 85 FR 17382, 17390-17396, finalized at 85 FR 44192; 86 FR 49100, 49107-49112, finalized at 86 FR 67343.

<sup>114</sup> 85 FR 17382, 17390-17396, finalized at 85 FR 44192.

<sup>115</sup> *Medical Advocates for Healthy Air v. EPA*, No. 20-72780, Memorandum, Dkt. #58-1 (9th Cir. Apr. 13, 2022).

*b. Using Same Contingency Measures for More Than One Triggering Event, NAAQS*

Under CAA section 172(c)(9), SIPs must provide for the implementation of specific contingency measures if the area fails to meet RFP or to attain the NAAQS by the applicable attainment date. For PM<sub>2.5</sub>, there are four potential triggering events: failure to meet any RFP requirement, failure to submit a QM report, failure to meet a QM, and failure to attain the NAAQS by the applicable attainment date.<sup>116</sup>

To meet the contingency measure requirement, states may adopt different measures for different triggering events but are not required to do so. If the state adopts the same set of contingency measures for all the triggering events, however, then the contingency measures may all be implemented by earlier-occurring triggering events leaving no contingency measures for potential later-occurring events. In that case, if a state has no remaining approved contingency measures, then the EPA believes that states must adopt and submit additional contingency measures to be available for potential later-occurring triggering events. The potential for states to have used all approved contingency measures, and thus to lack contingency measures for potential later-triggering events is compounded by the reliance on the same set of contingency measures for more than one iteration of the PM<sub>2.5</sub> NAAQS. Accordingly, while the EPA might approve a SIP that relies on the same contingency measures for multiple potential triggering events, a SIP that does so may be subject to the need for future revision each time a triggering event occurs.

As noted previously, CARB and the District have submitted three contingency measures, each of which covers all three of the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS (i.e., the same set of contingency measures has been submitted to address the contingency measure requirements for more than one PM<sub>2.5</sub> NAAQS). In addition, each of the contingency measures addresses each of the four potential triggering events: failure to meet any RFP requirement, failure to submit a QM report, failure to meet a QM, and failure to attain the

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<sup>116</sup> 40 CFR 51.1014(a).

NAAQS by the applicable attainment date.<sup>117</sup> As noted previously, states may adopt different measures for different triggering events and different NAAQS, but we do not believe that states are required to do so, and thus, we find that the State's reliance on the same set of contingency measures for more than one triggering event and more than one NAAQS to be acceptable.

In this instance, two of the three contingency measures – the Residential Wood Burning Contingency Measure and the Smog Check Contingency Measure – include provisions that would separately be implemented after a second triggering event.<sup>118</sup> Under section 5.7.3 of Rule 4901, upon a first triggering event, the No Burn (i.e., curtailment) thresholds for the five non-hot spot counties (Kings, Merced, San Joaquin, Stanislaus, and Tulare) would be lowered to match the tighter No Burn thresholds for the three hot spot counties (Fresno, Madera, and Kern) (i.e., to 35  $\mu\text{g}/\text{m}^3$  for registered devices and to 12  $\mu\text{g}/\text{m}^3$  for unregistered devices). Upon a subsequent triggering event (i.e., in response to a separate, later determination by the EPA), the No Burn threshold for unregistered fireplaces and woodstoves for all eight counties would be lowered from 12  $\mu\text{g}/\text{m}^3$  to 11  $\mu\text{g}/\text{m}^3$ .

Similarly, under the Smog Check Contingency Measure, upon a first triggering event, the Smog Check exemption would be lowered from eight or fewer model years old to seven or fewer model years old. Upon a subsequent triggering event (i.e., in response to a separate, later determination by the EPA), the Smog Check exemption would be lowered from seven or fewer model years old to six or fewer model years old.

Therefore, after a first triggering event, the State would have two remaining SIP-approved contingency measures that are not yet triggered as it develops a SIP revision to meet the missed RFP requirement or to correct ongoing nonattainment. The EPA believes that the State would need to assess whether those two remaining contingency measures were sufficient to meet the contingency measure requirements in that future time and, if necessary, adopt and

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<sup>117</sup> 40 CFR 51.1014(a).

<sup>118</sup> We note that the contingency provisions in Rule 8051 would be fully implemented following a first triggering event.

submit additional contingency measures to be available for potential later-occurring triggering events.

*c. Magnitude of Emissions Reductions*

As noted previously, neither the CAA nor the EPA's implementing regulations establish a specific level of emission reductions that implementation of contingency measures must achieve, but the EPA has recommended in existing guidance that contingency measures should provide for emission reductions equivalent to approximately one year of reductions needed for RFP in the nonattainment area.

Using the longstanding approach, contingency measures should provide for emissions reductions of approximately one year's worth of RFP for each of the relevant PM<sub>2.5</sub> NAAQS. Under the approach described in the EPA's Draft Revised Contingency Measure Guidance, the EPA has suggested that contingency measures provide for emissions reductions of approximately one year's worth of progress for each of the relevant PM<sub>2.5</sub> NAAQS rather than one year's worth of RFP.

We have reviewed the calculations in the SJV PM<sub>2.5</sub> Contingency Measure SIP, as summarized in section V.B.1 of this proposed rule, and find that the State properly calculated one year's worth of RFP (as an interim step in calculating one year's worth of progress) and one year's worth of progress for each of the relevant PM<sub>2.5</sub> NAAQS in the San Joaquin Valley.<sup>119</sup> We have also reviewed the calculations in the SJV PM<sub>2.5</sub> Contingency Measure SIP used to compare the emissions reductions from the Residential Wood Burning Contingency Measure with one year's worth of progress and generally find them to be acceptable with the exception that the calculation includes the emissions reductions from both triggering events in the evaluation. Only the emissions reductions from the first trigger should be used because there is no assurance that

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<sup>119</sup> With respect to the 2012 PM<sub>2.5</sub> NAAQS, we agree with the calculation of one year's worth of progress in the SJV PM<sub>2.5</sub> Contingency Measure SIP that is based on the outermost RFP milestone year, rather than the attainment year, because, as an area for which an impracticability demonstration has been approved, the attainment year has not yet been established.

the additional emissions reductions from the second triggering event will provide emissions reductions in the year or two following the first triggering event.

We recognize that the calculations in the SJV PM<sub>2.5</sub> Contingency Measure SIP relied upon an interpollutant trading ratio of 6:1 (i.e., 6 tpd NO<sub>x</sub> for each excess 1 tpd direct PM<sub>2.5</sub>) to convert “excess” PM<sub>2.5</sub> emissions reductions to equivalent NO<sub>x</sub> emissions reductions. The technical basis of the interpollutant trading ratio of 6:1 was provided in the State’s 2021 Progress Report to the EPA to support the State’s Serious area attainment demonstration for the 2012 annual PM<sub>2.5</sub> NAAQS. Specifically, the State analyzed the relative effect of reducing 30% direct PM<sub>2.5</sub> (annual average) emissions versus 30% NO<sub>x</sub> (annual average) emissions on ambient annual average PM<sub>2.5</sub> concentrations (as modeled for 2024) at each regulatory monitoring site in the San Joaquin Valley using data from the precursor sensitivity analyses in the 2018 PM<sub>2.5</sub> Plan.<sup>120</sup> While the 2021 Progress Report was nominally for only the 2012 annual PM<sub>2.5</sub> NAAQS and corresponded to the modeled 2025 attainment year in the State’s Serious area plan for the 2012 annual PM<sub>2.5</sub> NAAQS (later withdrawn on October 27, 2022), we note that the control strategy in the 2018 PM<sub>2.5</sub> Plan was built upon annual average emissions inventories (e.g., for demonstrating RFP) and applied in common to the 1997, 2006, and 2012 PM<sub>2.5</sub> NAAQS. Later, the 15 µg/m<sup>3</sup> SIP Revision for the 1997 annual PM<sub>2.5</sub> NAAQS retained the annual average emissions inventory basis for the control strategy to attain that NAAQS and continued to rely on the State’s precursor sensitivity analyses. In other words, there is a common foundation on which CARB and the District selected the 6:1 ratio.

As previously discussed, CARB and the District examined several methods for calculating the ratio based on varying combinations of monitoring sites. They concluded that 6:1 was a conservative ratio as it was less than the average ratio for the two sites (in Fresno and Kern Counties) with the highest modeled (annual average) ambient PM<sub>2.5</sub> concentrations in 2025

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<sup>120</sup> See Appendix K (“Modeling Attainment Demonstration”) of the 2018 PM<sub>2.5</sub> Plan, including Table 14 (annual average modeled emissions inventory) and Table 49 (precursor sensitivity analysis for annual average ambient PM<sub>2.5</sub> concentration in 2024).

(6.1:1), the average ratio of the six sites (in Fresno, Kern, Stanislaus, and Tulare Counties) with modeled 2025 concentrations over 11.00  $\mu\text{g}/\text{m}^3$  (6.4:1), and the average ratio of the six sites (in Fresno, Kern, Kings, and Tulare Counties) with a 2020 design value over 12  $\mu\text{g}/\text{m}^3$  (6.6:1).<sup>121</sup>

We have reviewed the State’s technical basis for the 6:1 interpollutant trading ratio and find that it is a reasonable ratio for purposes of estimating the  $\text{NO}_x$  equivalent of excess direct  $\text{PM}_{2.5}$  emission reductions for purposes of contingency measures in the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual  $\text{PM}_{2.5}$  NAAQS. First, the annual average emissions inventory and integrated nature of attainment planning for the three NAAQS provides a common emissions and control strategy basis for the ratios. Second, the ratios are based on whole emissions inventories (rather than, for example, only on-road emissions inventories that might be relevant to motor vehicle emission budgets) and modeling for a near-term year (2025), given that these contingency measures would be triggered no sooner than 2024.

Third, by examining several methods that involve averaging across two to six sites, including two methods that include both hot spot and non-hot spot counties, the State provides robustness in the ratio (i.e., may better reflect the effect of emission reductions from the three contingency measures across sites in the San Joaquin Valley). The inclusion of non-hot spot counties in two of the averaging methods is important in that, upon a first triggering event, the Residential Wood Burning Contingency Measure – which is the contingency measure that would achieve emission reductions in excess of one year’s worth of direct  $\text{PM}_{2.5}$  emission reductions – would lower the No Burn (i.e., curtailment) thresholds for the five non-hot spot counties (Kings, Merced, San Joaquin, Stanislaus, and Tulare) to match the tighter No Burn thresholds for the three hot spot counties (Fresno, Madera, and Kern). Fourth, we agree with CARB and the District that the selected 6:1 ratio is conservative relative to the slightly higher average ratios of

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<sup>121</sup> 2021 Progress Report, Table 7 (“Base and Projected 2025 Annual Average Design Values Used to Select/Prioritize Sites for Calculating an Average Trading Ratio”). At the time, the modeled 2025 concentrations corresponded to the attainment year in the State’s Serious area plan for the 2012 annual  $\text{PM}_{2.5}$  NAAQS, which was later withdrawn on October 27, 2022.

6.1:1, 6.4:1, and 6.6:1 from the methods that select sites with relatively high modeled concentrations, and relative to the ratio of 8.1:1 at the modeled 2025 high site of Bakersfield-Planz.<sup>122</sup>

The SJV PM<sub>2.5</sub> Contingency Measure SIP calculated the emissions reductions only from the Residential Wood Burning Contingency Measure because that was the only adopted contingency measure at the time, but the District and CARB have since supplemented the submission with two additional contingency measures – the Rural Open Areas Contingency Measure and the Smog Check Contingency Measure. As described in sections IV.A and IV.B of this proposed rule, the EPA proposes to approve the Residential Wood Burning Contingency Measure and the Rural Open Areas Contingency Measure and, in a separate rulemaking action, we are proposing to approve the Smog Check Contingency Measure. Table 2 summarizes the estimated emissions reductions from these contingency measures, as evaluated by the EPA.

**Table 2 – Annual Average Emissions Reductions from District and CARB Contingency Measures, tpd**

Contingency Measure	1997 Annual PM <sub>2.5</sub> NAAQS		2006 24-hour PM <sub>2.5</sub> NAAQS		2012 Annual PM <sub>2.5</sub> NAAQS	
	Direct PM <sub>2.5</sub>	NO <sub>x</sub>	Direct PM <sub>2.5</sub>	NO <sub>x</sub>	Direct PM <sub>2.5</sub>	NO <sub>x</sub>
District: Residential Wood Burning (first triggering event)	0.5793	0.0817	0.5793	0.0817	0.5793	0.0817
District: Non-agricultural Rural Open Areas	0.008	--	0.008	--	0.008	--
CARB: Smog Check (first triggering event)	--	0.117	--	0.120	--	0.086
CARB: Effect of Moyer Program funding decrease in the San Joaquin Valley if Smog Check Contingency Measure triggered	--	(0.004)	--	(0.004)	--	(0.003)
<b>TOTAL</b>	<b>0.5873</b>	<b>0.1947</b>	<b>0.5873</b>	<b>0.1977</b>	<b>0.5873</b>	<b>0.1647</b>

<sup>122</sup> We note that the interpollutant trading ratio of 6:1 compares favorably with the interpollutant trading ratios that the EPA used recently in the Agency’s proposed San Joaquin Valley PM<sub>2.5</sub> contingency measure FIP. We provide our evaluation of the interpollutant trading ratio in the SJV PM<sub>2.5</sub> Contingency Measure SIP relative to the corresponding ratios in our proposed FIP in a Memorandum to File from Rory Mays and Scott Bohning, EPA Region IX, Subject: “Comparison of California and EPA Interpollutant Trading Ratios for Trading Excess Direct PM<sub>2.5</sub> Emission Reductions to NO<sub>x</sub> Equivalent Emission Reductions for PM<sub>2.5</sub> Contingency Measure Purposes in the San Joaquin Valley,” December 2023.

Table 3 presents the estimated emissions reductions as percentages of one year’s worth of RFP and one year’s worth of progress both with and without trading between direct PM<sub>2.5</sub> and NO<sub>x</sub> emissions. As noted previously in this proposed rule, one year’s worth of RFP is the longstanding recommendation by the EPA to states regarding the magnitude of emissions reductions that contingency measures should be capable of achieving. One year’s worth of progress is the new recommendation described in the EPA’s Draft Revised Contingency Measure Guidance. In addition, we are proposing to approve the State’s trading ratio of 6:1 (i.e., 6 tpd NO<sub>x</sub> for each excess 1 tpd direct PM<sub>2.5</sub>) and to trade excess direct PM<sub>2.5</sub> emission reductions, as evaluated by the EPA, to substitute for a portion of the shortfall in NO<sub>x</sub> emission reductions compared to one year’s worth of RFP and one year’s worth of progress.<sup>123</sup> We apply this trading ratio in our calculations for all three PM<sub>2.5</sub> NAAQS considered in this proposed rule.

**Table 3 – EPA Evaluation of District and CARB Contingency Measures as Percentage of One Year’s Worth (OYW) of RFP and One Year’s Worth of Progress**

PM <sub>2.5</sub> NAAQS	Pollutant	One Year’s Worth of RFP			One Year’s Worth of Progress		
		Reductions Target	% OYW (No Trading)	% OYW (With Trading) <sup>a</sup>	Reductions Target	% OYW (No Trading)	% OYW (With Trading) <sup>a</sup>
1997 Annual	Direct PM <sub>2.5</sub>	0.44	132%	100%	0.41	142%	100%
	NO <sub>x</sub>	16.7	1.2%	6.3%	7.9	2.5%	15.7%
2006 24-hour	Direct PM <sub>2.5</sub>	0.58	101%	100%	0.52	112%	100%
	NO <sub>x</sub>	18.4	1.1%	1.3%	6.7	3.0%	8.8%
2012 Annual	Direct PM <sub>2.5</sub>	0.46	129%	100%	0.43	138%	100%
	NO <sub>x</sub>	15.3	1.1%	6.3%	8.7	1.9%	13.1%

<sup>a</sup> The EPA has calculated % OYW (With Trading) for NO<sub>x</sub> based on the 6:1 ratio presented in the SJV PM<sub>2.5</sub> Contingency Measure SIP.

As shown in Table 2, the sum of the emissions reductions from the three contingency measures is approximately 0.5873 tpd direct PM<sub>2.5</sub> and ranges from 0.1647 tpd to 0.1977 tpd NO<sub>x</sub>, depending on the particular PM<sub>2.5</sub> NAAQS. Without taking into account the substitution principle, these reductions would exceed one year’s worth of RFP for direct PM<sub>2.5</sub> and provide a portion of one year’s worth of RFP for NO<sub>x</sub> for the 1997 annual PM<sub>2.5</sub> NAAQS, 2006 24-hour

<sup>123</sup> While this trading would not make up the entire shortfall in NO<sub>x</sub> emission reductions, it gives a sense for the magnitude of the relative ambient effect of the excess direct PM<sub>2.5</sub> emission reductions towards meeting one year’s worth of RFP or one year’s worth of progress.

PM<sub>2.5</sub> NAAQS, and the 2012 annual PM<sub>2.5</sub> NAAQS, as shown in Table 3. With respect to one year's worth of progress, these reductions would similarly exceed one year's worth of progress for direct PM<sub>2.5</sub> and provide a portion of one year's worth of progress for NO<sub>x</sub> for all three PM<sub>2.5</sub> NAAQS, as shown in Table 3.

Taking into account the substitution principle, under which, in this case, excess direct PM<sub>2.5</sub> emissions are substituted for a shortfall in NO<sub>x</sub> emissions, the reductions would amount to 100% of one year's worth of RFP for direct PM<sub>2.5</sub> and the following amounts of one year's worth of RFP for NO<sub>x</sub> for each NAAQS: 1997 annual PM<sub>2.5</sub> NAAQS (6.3%), 2006 24-hour PM<sub>2.5</sub> NAAQS (1.3%), and 2012 annual PM<sub>2.5</sub> NAAQS (6.3%). Similarly, the reductions would amount to 100% of one year's worth of progress for direct PM<sub>2.5</sub> and the following amounts of one year's worth of progress for NO<sub>x</sub> for each NAAQS: 1997 annual PM<sub>2.5</sub> NAAQS (15.7%), 2006 24-hour PM<sub>2.5</sub> NAAQS (8.8%), and 2012 annual PM<sub>2.5</sub> NAAQS (13.1%).

While our estimates of the emissions from the contingency measures relative to one year's worth of RFP or progress differ in some respects from those contained in the SJV PM<sub>2.5</sub> Contingency Measure SIP, our conclusion is the same as the conclusion drawn by the District and CARB, namely, that the emissions reductions would provide for one year's worth of RFP or progress for direct PM<sub>2.5</sub> but would provide only a portion of one year's worth of RFP or progress for NO<sub>x</sub>. Thus, we would expect the State to provide a "reasoned justification" to support approval of the contingency measures as meeting the requirements under CAA section 172(c)(9) and 40 CFR 51.1014 for the nonattainment area even though the contingency measures would not provide for the magnitude of emissions reductions recommended by the EPA to comply with the requirements. The District and CARB have included their reasoned justifications in the form of feasibility analyses included as chapters 4 and 5 of the SJV PM<sub>2.5</sub> Contingency Measure SIP, respectively. We provide our review of the feasibility analyses in the following section of this document.

## 2. Contingency Measure Feasibility Analyses

The EPA has reviewed the State’s infeasibility demonstrations for not adopting contingency measures beyond the residential wood burning, rural open areas, and Smog Check contingency measures, including both the process used by the State and its assessment specific to a wide range of stationary, area, and mobile source categories.<sup>124</sup> Notably, in connection with the EPA’s proposed contingency measure FIP for the San Joaquin Valley, the EPA recently prepared a detailed evaluation of source categories and measures that we considered as potential additional contingency measures but determined to be infeasible or otherwise unsuitable for contingency measures. See “EPA Source Category and Control Measure Assessment and Reasoned Justification Technical Support Document, Proposed Contingency Measures Federal Implementation Plan for the Fine Particulate Matter Standards for San Joaquin Valley, California,” July 2023 (“EPA’s Reasoned Justification TSD”). We have relied heavily on that TSD given its breadth and depth, as well as the expertise of EPA Region IX staff, to review the State’s infeasibility demonstration, understand where the State’s and the EPA’s analyses draw largely similar conclusions, and identify those source categories where the control measure analyses differ. As described in the following paragraphs, the EPA proposes to find that the State’s infeasibility demonstrations adequately justify the contingency measures selected by the State to meet the contingency measure requirement under CAA section 172(c)(9) and 40 CFR 51.1014 for the San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS.

In terms of process, both CARB and the District identified and evaluated existing and potential control measures using components of the process recommended in the EPA’s Draft Revised Contingency Measures Guidance,<sup>125</sup> even if not necessarily in the same sequence as those recommended by the EPA. As described in section V.B.2 of this proposed rule, for the wide range of stationary and area sources under its jurisdiction, the District described their

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<sup>124</sup> Our summaries of the infeasibility demonstrations are found in section V.B.2 of this document.

<sup>125</sup> EPA’s Draft Contingency Measure Guidance, section 4 (“Reasoned Justification for Less Than [One Year’s Worth] of Progress”).

ongoing stationary source regulatory efforts, identified potential control measures as candidate contingency measures, and analyzed the technological and/or economic feasibility of each candidate measure, including the feasibility of implementing such measures within 60 days and achieving the resulting emission reductions within one to two years.<sup>126</sup> The District also provided more in-depth analysis of potential control measures for five source categories, ultimately adopting measures for two source categories (wood burning fireplaces and wood burning heaters and rural open areas) and providing a reasoned justification for not adopting such measures for the other three source categories (commercial charbroiling, almond harvesting, and oil and gas production combustion equipment). We find that the District employed a reasonable process to identify and assess the feasibility and suitability of potential control measures as contingency measures for stationary and area sources in the San Joaquin Valley.

Similarly, as described in section V.B.2 of this proposed rule, CARB identified potential mobile source control measures, assessed whether each candidate measure could be implemented within 60 days of a triggering event and emission reductions achieved within one to two years, and then analyzed their technological and/or economic feasibility.<sup>127</sup> Regarding timing of emission reductions from mobile sources, CARB concludes that new engine standards and fleet regulations are not appropriate for contingency measures given the time needed for manufacturers to design, develop, and deploy cleaner engines or equipment at scale, especially for zero-emission equipment.

As described in the EPA's Reasoned Justification TSD,<sup>128</sup> as a general matter, new mobile source engine or vehicle emission standards require significant lead time (more than two years) to allow manufacturers time to retool factories to produce compliant engines or vehicles. Retrofit or replacement requirements also require significant lead time to allow owners and

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<sup>126</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 9-11.

<sup>127</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, section 5.3 ("Measure Analysis"); and Smog Check Contingency Measure, Appendix A ("Infeasibility Analysis").

<sup>128</sup> EPA's Reasoned Justification TSD, pp. 143-144.

operators to manage the process of retrofitting or replacing old engines or vehicles. Therefore, we agree with CARB that such mobile source control measures would not achieve emission reductions within one to two years of a contingency measure triggering event. Overall, we find that the CARB employed a reasonable process to identify and assess the feasibility and suitability of potential control measures as contingency measures for mobile sources in the San Joaquin Valley and in California more broadly.<sup>129</sup>

Beyond the analytical components employed by CARB and the District that mirror those recommended by the EPA, CARB and the District also evaluated whether they could develop, adopt, and secure EPA approval of SIP submissions, including additional contingency measures, meeting the contingency measure requirements, prior to the September 30, 2024 consent decree deadline for the EPA to promulgate a contingency measures FIP for San Joaquin Valley for the 1997 annual, 2006 24-hour and 2012 PM<sub>2.5</sub> NAAQS.<sup>130</sup> The EPA finds that such considerations, while important in the broader context of environmental regulation and sanctions in the San Joaquin Valley, are not appropriate for evaluating the feasibility or suitability of potential control measures as contingency measures. Even absent final guidance from the EPA, states are required to adopt and submit contingency measures within the timelines established by the CAA in response to EPA actions, including disapproval of prior contingency measure submissions, as was the case here, effective December 27, 2021.<sup>131</sup> In this instance, however, neither CARB nor the District relied upon the inability to adopt contingency measures and secure EPA approval by the consent decree deadline as the sole justification for not adopting additional contingency measures for any of the relevant source categories.

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<sup>129</sup> We note that the EPA's Reasoned Justification TSD contains additional information that presents a comprehensive summary of the emissions inventories for direct PM<sub>2.5</sub> and NO<sub>x</sub> in the San Joaquin Valley, as well as consideration of past recommendations of new control measures or improvements to existing control measures by the EPA and community and environmental groups (whether for purposes of RACM/RACT, BACM/BACT, MSM, attainment and RFP demonstrations, or contingency measures).

<sup>130</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 12-25 and pp. 57-58.

<sup>131</sup> 86 FR 67329 and 86 FR 67343.

In addition, in certain instances, the District states that the robust public process necessary to develop and adopt control measures would take more than two years,<sup>132</sup> while CARB states that a state-wide regulatory measure typically needs five years to develop and adopt,<sup>133</sup> and therefore fall outside the one to two-year timeframe recommended in the EPA's Draft Revised Contingency Measures Guidance. While we certainly appreciate the importance of robust public process in developing control measures, inclusive of public process requirements in the CAA and the Administrative Procedures Act, the EPA finds that such timing considerations are not appropriate for assessing the feasibility of potential control measures as contingency measures. As previously noted, states are required to adopt and submit contingency measures within the timelines established by the CAA in response to EPA actions, including disapproval of prior contingency measure submissions.

For each of the stationary and area source categories examined, the EPA agrees with the District's determination that additional control measures cannot feasibly reduce emissions within one to two years. We first describe those source categories where we agree with the bases presented by the District. Then we discuss those source categories where the basis of the EPA's conclusion differs from that of the District, even while the conclusion itself is the same – that the additional control measure evaluated cannot feasibly reduce emissions within one to two years.

The District's analyses and conclusions were substantially the same as those of the EPA for the following source categories: open burning and prescribed/hazard burning (Rules 4103 and 4106), cotton gins (Rule 4204), fuel burning equipment (Rule 4301), flares (Rule 4311), lime kilns (Rule 4313; none operate in the San Joaquin Valley), solid fuel-fired boilers, steam generators, and process heaters (Rule 4352), glass melting furnaces (Rule 4354), asphalt paving and maintenance (Rule 4641; a VOC rule), internal combustion engines (Rule 4702), stationary gas turbines (Rule 4703), residential wood burning (Rule 4901, excluding the Residential Wood

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<sup>132</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, section 4.2 (“District Feasibility Analysis”).

<sup>133</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, 57.

Burning Contingency Measure submitted as amendments to the rule), and fugitive dust (Regulation VIII, excluding the Rural Open Areas Contingency Measure submitted as amendments to Rule 8051).<sup>134</sup>

We note that the candidate control measures evaluated for certain sources, such as internal combustion engines, stationary gas turbines, boilers, steam generators, and process heaters, would require installation of costly and engineering-intensive devices (e.g., oxy-fuel fired furnaces and natural gas furnaces equipped with selective catalytic reduction (SCR) for glass melting). As described in the EPA's Reasoned Justification TSD, while these technologies may be available and feasible in some contexts, we found that it would be technologically infeasible for these measures to be implemented and achieve meaningful emission reductions within one to two years.<sup>135</sup> Thus, we agree with the District's determinations that such measures would be technologically infeasible in the context of contingency measures at this time.

We note that the EPA's Reasoned Justification TSD does not present an evaluation of potential contingency measures specifically related to District Rules 4301, 4309, and 4352 and, thus, we provide our review and evaluation in this document. With respect to fuel burning equipment (Rule 4301), the SJV PM<sub>2.5</sub> Contingency Measure SIP notes that the District has adopted more stringent NO<sub>x</sub> requirements for specific types of fuel burning equipment that supersede Rule 4301.<sup>136</sup> Potential contingency measures for emission sources related to Rule 4301 are covered in the EPA's evaluation of Rules 4306, 4307, 4308, 4309, 4320, and 4352. Our assessments of Rules 4309 and 4352 are contained in the following paragraphs.

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<sup>134</sup> We note that, in responding to comments received during the public review of the SJV PM<sub>2.5</sub> Contingency Measure SIP and Residential Wood Burning Contingency Measure, the District states that, while there are limited opportunities for contingency measures, the District "will consider additional wood burning curtailments as part of control measure analyses for upcoming [SIPs]." SJV PM<sub>2.5</sub> Contingency Measure SIP, Appendix J ("Comments and Responses"), p. J-4. See also EPA's Reasoned Justification TSD, section G.1 ("Residential Fuel Combustion").

<sup>135</sup> See, e.g., EPA's Reasoned Justification TSD, pp. 9-22 (the EPA's evaluation of contingency measures for boilers, steam generators, and process heaters).

<sup>136</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 13-14.

With respect to dryers, dehydrators, and ovens (related to Rule 4309), the District considered controls such as low NO<sub>x</sub> burners and determined that such technology could not feasibly be implemented within the two-year timeframe for contingency measures for this category, includes further discussion in appendices F and G of the SJV PM<sub>2.5</sub> Contingency Measure SIP (i.e., copies of the stationary and area source control evaluations for the 2022 Ozone Plan<sup>137</sup> and the 2018 PM<sub>2.5</sub> Plan, respectively), and states that, in certain applications (e.g., dehydrators for onions), may have an adverse effect on food product quality.<sup>138</sup> We have reviewed the District's infeasibility demonstration and agree that emissions reductions for this category could not feasibly be achieved within one to two years, and are therefore not suitable for contingency measures. As discussed in Appendix F of the SJV PM<sub>2.5</sub> Contingency Measure SIP, South Coast Air Quality Management District (AQMD) has recently revised and divided its rules for comparable sources, including amendments to NO<sub>x</sub> limits, that are difficult to compare to Rule 4309 given their distinct applicability and provisions (e.g., whether limits are differentiated by operating temperature). The EPA recommends that the District continue to evaluate dryers, dehydrators, and ovens for opportunities to further reduce NO<sub>x</sub> emissions (and, as applicable, PM<sub>2.5</sub> emissions) in developing subsequent plans.

With respect to Rule 4352, the State's submittal notes that the District adopted amendments to Rule 4352 in December 2021, and District analysis associated with the 2021 amendments to Rule 4352 found that all control alternatives that would further reduce emissions require technology that had prohibitively high capital costs and were not cost effective,<sup>139</sup> and have not been widely implemented at facilities subject to Rule 4352. Given these reasons and given that the emission limits included in the 2021 amendments to Rule 4352 are lower than those of other districts' rules, we agree with the District's conclusion with respect to Rule 4352.

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<sup>137</sup> SJVUAPCD, "2022 Plan for the 2015 8-hour Ozone Standard," adopted December 15, 2022.

<sup>138</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, p. 16.

<sup>139</sup> SJVUAPCD, "Appendix C, Cost Effectiveness Analysis for Proposed Amendments to Rule 4352 (Solid Fuel Fired Boilers, Steam Generators, and Process Heaters)," December 16, 2021.

For several other source categories, the EPA finds that the contingency measure analyses by the District and the EPA differ in certain respects that warrant further discussion. Notwithstanding these differences, both the District's analyses and the EPA's analyses supporting our recent contingency measure FIP proposal support the conclusion that the measures evaluated cannot feasibly reduce emissions within one to two years. We discuss each of these cases in the paragraphs that follow.

With respect to residential water heaters (Rule 4902) and residential furnaces (Rule 4905), the District evaluated a contingency measure option to adopt electrification requirements (i.e., requiring newly purchased furnaces and water heaters to be zero-emission units) earlier than a commitment by CARB to develop a state-wide building electrification measure that would achieve emission reductions starting in 2030.<sup>140</sup> The District deemed this contingency measure option infeasible, citing the lead time necessary for manufacturers to design and produce electric units, the need for collaboration with energy and building code regulators, consistency with State and local efforts, consideration of housing cost and affordability impacts, and equity considerations for low-income and environmental justice communities.<sup>141</sup> While we note that certain aspects of these factors do not necessarily align with the feasibility criteria outlined in the EPA's Draft Revised Contingency Measures Guidance,<sup>142</sup> the EPA determined that the building electrification contingency measure option would not be feasible because we expect that it would result in negligible emissions reductions within two years after trigger,<sup>143</sup> consistent with the District's suggestion that the attrition-based nature of implementation of this contingency measure option deem the measure infeasible. The EPA also recommended that the District consider developing control measures or programs that would incentivize the early replacement

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<sup>140</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, 20-22.

<sup>141</sup> For further discussion of these factors, see CARB, "2022 State Strategy for the State Implementation Plan," adopted September 22, 2022, pp. 101-103 ("Proposed Measures: Residential and Commercial Buildings").

<sup>142</sup> EPA's Draft Revised Contingency Measures Guidance, pp. 35-38.

<sup>143</sup> EPA's Reasoned Justification TSD, pp. 43-51.

of existing gas space and water heaters with electric appliances, as such actions could significantly reduce emissions from this significant source category in the longer-term future.

With respect to commercial charbroiling (Rule 4692), the District noted that particulate matter control devices are required to be installed and operated on chain-driven commercial charbroilers under Rule 4692. The District evaluated a contingency measure option involving the requirement of particulate matter controls on underfired charbroilers. The District's evaluation includes a detailed cost analysis, concluding that underfired charbroiler contingency measure option is infeasible based on high costs of installation and maintenance, technological infeasibility considerations, lack of availability of specialized staff at restaurants, control equipment fire safety certification concerns, and the lack of demonstrated controls in areas that have adopted underfired charbroiling control measures.<sup>144</sup> The District also described ongoing and upcoming efforts to advance underfired charbroiler emissions control technology and demonstrate its performance in practice. The EPA's evaluation did not present cost information to conclude that an underfired charbroiling contingency measure would be economically infeasible, and we did not include the same considerations regarding lack of availability of specialized staff at restaurants and other technological feasibility concerns presented by the District. However, the EPA determined that an underfired charbroiling contingency measure would be infeasible based on fire safety certification concerns and lack of demonstrated implementation of controls.<sup>145</sup> In addition to recommending that the District and CARB collaborate with control technology manufacturers and industry to develop effective methods for reducing the commercial cooking industry's impact on public health, the EPA strongly encouraged the District to expand its Restaurant Charbroiler Technology Partnership program beyond hot spot counties.

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<sup>144</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 32-41.

<sup>145</sup> EPA's Reasoned Justification TSD, pp. 131-136.

With respect to conservation management practices (Rule 4550), the District describes its commitment in the 2018 PM<sub>2.5</sub> Plan to evaluate emission reduction opportunities for sources in this category (e.g., emission reductions from fallowed lands and promotion of selection of conservation tillage as a conservation management practice [CMP]), explaining that rule development is ongoing and describing Rule 4550 as an “on-the-way” measure.<sup>146</sup> We acknowledge the ongoing efforts by the District to pursue emission reductions from these sources,<sup>147</sup> although we note that the District’s use of the “on-the-way” term differs from its usage in the Draft Revised Contingency Measures Guidance, where the EPA defines “on-the-way” measures as “the control measures in the nonattainment plan that will be implemented during the upcoming planning period” (i.e., adopted measures whose implementation is forthcoming in the near-term).<sup>148</sup> However, the EPA conducted its own evaluation of Rule 4550, finding that Rule 4550 contains conservation management practice options that are comparable with the rules identified in other jurisdictions and generally contain the same control measures required in other jurisdictions.<sup>149</sup>

The District also presented an evaluation of dust emissions from almond harvesting, concluding that a contingency measure requiring the replacement of conventional harvesting technology with low dust harvesting technology would be infeasible based on long lead times needed to meet significant increased demand generated by such a measure, prohibitively high cost of equipment, and the need to conduct additional research to better understand the changing landscape in harvesting techniques and associated emissions.<sup>150</sup> The EPA’s evaluation determined that such a measure would be infeasible based only on the timing of emissions reductions; while the EPA presented cost effectiveness information for low dust almond

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<sup>146</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 23-24.

<sup>147</sup> See, e.g., SJVUAPCD, “Public Workshop for Potential Amendments to District Rule 4550 (Conservation Management Practices),” November 7, 2022 (workshop presentation).

<sup>148</sup> EPA’s Draft Revised Contingency Measure Guidance, p. 32.

<sup>149</sup> EPA’s Reasoned Justification TSD, pp. 86-90.

<sup>150</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 41-43.

harvesters,<sup>151</sup> the EPA did not determine that a low dust harvester replacement contingency measure would be economically infeasible, nor did we determine that any work needed to understand the emissions profile of low dust nut harvesters would disqualify a potential low dust harvester replacement contingency measure.<sup>152</sup>

With respect to oil and gas production combustion equipment (related to District Rules 4306 and 4320), the District evaluated numerous control options including direct control of PM<sub>2.5</sub> (e.g., electrostatic precipitators or venturi scrubbers), electrification of oilfield steam generators, and solar powered oilfield steam generators.<sup>153</sup> For each of these options, the District provided technological and/or economic feasibility considerations deeming each option infeasible as a contingency measure. The District also evaluated lower emission limits for boilers and steam generators.<sup>154</sup> In this evaluation, the District explained that the EPA has determined that Rule 4306 meets MSM requirements and that Rule 4320 goes beyond MSM by establishing even lower emissions limits. The District noted that equipment operators are already in the process of investing in and installing technology to meet the recently amended Rule 4320 limits and suggests that the time needed to plan and prepare for installation of control equipment to meet lower limits would exceed the one- to two-year timeline for a contingency measure to achieve emissions reductions. The District also claims numerous technological feasibility considerations associated with lowering emission limits for this category. While the District describes a “lack of EPA recognized SIP-creditable emissions reductions from Rule 4320” due to the technology advancing nature of Rule 4320,<sup>155</sup> the EPA would recognize SIP-creditable emission reductions for this category if provided with the appropriate information such as

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<sup>151</sup> EPA’s Reasoned Justification TSD, chapter V.

<sup>152</sup> EPA’s Reasoned Justification TSD, p. 95.

<sup>153</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 44-47.

<sup>154</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 47-49.

<sup>155</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, p. 49.

records of the number of units complying with Rule 4320 NO<sub>x</sub> emission limits and their associated emissions.<sup>156</sup>

The EPA's evaluation focused on lowering emission limits for boilers and steam generators, including identification of lower emission limits adopted by the South Coast AQMD for oilfield steam generators than those adopted in Rule 4306. While the EPA's evaluation does not claim that control requirements required to meet the lower limits would be technologically infeasible altogether (in light of the lower limits adopted by South Coast AQMD), we determined that it would be technologically infeasible to meet the lower limits within the two-year timeframe for contingency measures due to the likely requirement that affected units would need to install SCR to meet the lower limits.

The District also included evaluations for boilers, steam generators, and process heaters in general covered by District Rules 4307 and 4308.<sup>157</sup> The District's assessments for these rules focus on economic and technological feasibility, citing dollar per ton cost effectiveness values for numerous control options and adding technological feasibility concerns for SCONO<sub>x</sub>/EM<sub>x</sub> units. The EPA's evaluation for boilers in general does not provide cost effectiveness values to suggest that lower emission limits for boilers, steam generators, and process heaters are economically infeasible. However, as described in the EPA's evaluation, we expect that units required to meet lower limits than those already adopted in Rules 4307 and 4308 would require installation of SCR, which cannot be feasibly achieved within the two-year timeframe for contingency measures.<sup>158</sup>

Similar to our evaluation of the District's feasibility analysis, we have evaluated CARB's feasibility analysis, in part, by comparing the bases and conclusions of the State's analysis

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<sup>156</sup> See also, EPA Region IX, "Technical Support Document for EPA's Notice of Proposed Rulemaking for the California State Implementation Plan, San Joaquin Valley Unified Air Pollution Control District's Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr," August 19, 2010, p. 8.

<sup>157</sup> SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 14-16.

<sup>158</sup> EPA's Reasoned Justification TSD, pp. 9-22.

against those presented in the EPA's Reasoned Justification TSD.<sup>159</sup> Both CARB and the EPA note the importance of mobile source emissions in the San Joaquin Valley, particularly given that the large majority of NO<sub>x</sub> emissions are from mobile sources, and describe the breadth of control measures considered by CARB to reduce direct PM<sub>2.5</sub> and NO<sub>x</sub> emissions for broader CAA purposes in the San Joaquin Valley. These include new vehicle and engine emission standards, for both on-road and non-road applications, which generally apply to manufacturers and achieve emission reductions through vehicle turnover; retrofit or replacement requirements for existing vehicles and fleets; and inspection and maintenance (I/M) program requirements, such as those implemented under California's Smog Check program for light-duty passenger cars and trucks, and those entering implementation under California's Heavy-Duty I/M program. We agree that the adopted measures and on-going development of mobile sources measures by CARB, including zero-emission standards, further constrain the opportunities for additional emission reductions via contingency measures.<sup>160</sup>

With respect to contingency measure requirements, CARB examined potential controls across the wide range of mobile source categories, including on-road light-duty passenger cars, trucks, and motorcycles; medium- and heavy-duty trucks and buses and transportation refrigeration units; commercial harbor craft, recreational boats, and ocean going vessels; off-road industrial, construction, and mining equipment; airport ground equipment, port and rail operations, and locomotives; lawn and garden equipment; and space and water heaters. The potential controls considered include pulling forward compliance dates and/or phase-in requirements; setting more stringent standards (often atop recently tightened standards) through mechanisms such as emission standards, emissions caps, thresholds for compliance, testing frequency, making optional standards required, or percentage of sales requirements; and removing exemptions and/or compliance options. In virtually all cases, CARB found that control

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<sup>159</sup> EPA's Reasoned Justification TSD, section H ("Mobile Sources").

<sup>160</sup> EPA's Reasoned Justification TSD, pp. 139-142. See also, SJV PM<sub>2.5</sub> Contingency Measure SIP, pp. 53-56; and Smog Check Contingency Measure, pp. 8-10.

measures beyond those already adopted or in development to fulfill commitments (e.g., under the 2022 State SIP Strategy) were not technologically feasible.<sup>161</sup> In all cases (except the adopted Smog Check Contingency Measure), CARB found that the measures were not suitable for contingency measures due to lead time to develop, certify, adopt, and/or implement measures that could not be implemented within 60 days of a triggering event and achieve emission reductions within one year of the triggering event.

We have reviewed CARB's specific control measure analyses and agree that such potential control measures are not feasible within the timeframe necessary for contingency measures and, in many cases, are not technologically feasible to the extent that they build upon on-the-books and on-the-way measures that are technology- or market-forcing. Consistent with our evaluation presented in the EPA's Reasoned Justification TSD,<sup>162</sup> the EPA has not identified any engine or vehicle emission standards for consideration as contingency measures. Beyond the wide range of source types and control approaches examined by CARB, the EPA also examined a handful of potential additional controls and concluded that they too were not suitable as contingency measures, including expansion of Enhanced I/M requirements to areas currently subject to Basic I/M or Partial Enhanced I/M requirements in the San Joaquin Valley,<sup>163</sup> provisions to expand the applicability of and add requirements to District Rule 9510 ("Indirect

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<sup>161</sup> There were three measures that CARB indicated as technologically feasible. One is the Smog Check Contingency Measure that CARB has adopted and submitted to the EPA. A second was a different Smog Check measure that would add requirements for only high mileage vehicles; however, CARB found that the compliance burden would disproportionately fall on low-income populations and disadvantaged communities. SJV PM<sub>2.5</sub> Contingency Measures SIP, p. 59. The third was to increase the testing frequency under the Heavy-Duty I/M program; however, CARB found that the compliance burden would disproportionately fall on small businesses and low-income populations. SJV PM<sub>2.5</sub> Contingency Measure SIP, p. 62 and Appendix A, p. 49. In the latter two cases, CARB also found that, even if the measure were technologically feasible, the measures could not be effectuated within the timeframe necessary for contingency measures.

<sup>162</sup> EPA's Reasoned Justification TSD, pp. 138-144.

<sup>163</sup> EPA's Reasoned Justification TSD, section IV.E. In addition, CARB noted in its comment letter on the EPA's proposed contingency measure FIP that, under the I/M measure evaluated by the EPA, 50% of the vehicles that would be newly subject to Enhanced I/M would be in disadvantaged communities whereas only 35% of San Joaquin Valley population live in such disadvantaged communities. Letter dated September 22, 2023, from Steven S. Cliff, Ph.D., Executive Officer, CARB to Martha Guzman, Regional Administrator, EPA Region IX. In other words, the compliance burden would disproportionately fall on low-income populations and disadvantaged communities.

Source Review”),<sup>164</sup> and additional transportation control measures.<sup>165</sup> Therefore, we propose to find that CARB’s infeasibility demonstration adequately justifies the contingency measures selected by CARB for the San Joaquin Valley for the 1997 annual, 2006 24-hour and 2012 annual PM<sub>2.5</sub> NAAQS.

### 3. Conclusion

Based on our review and proposed approval of the three contingency measures submitted by the State that would achieve the full one year’s worth of emission reductions for direct PM<sub>2.5</sub> and a portion of one year’s worth of emission reductions for NO<sub>x</sub> (whether using the longstanding RFP method or the new progress method) and our review of and proposed finding that the State’s infeasibility demonstrations adequately justify the selection of the three contingency measures, we propose to approve the SJV PM<sub>2.5</sub> Contingency Measures SIP, the Residential Wood Burning Contingency Measure, the Rural Open Areas Contingency Measure, and the Smog Check Contingency Measure (as applied to the San Joaquin Valley) as meeting the contingency measure requirements of CAA section 172(c)(9) and 40 CFR 51.1014 for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS in the San Joaquin Valley.

## **VI. Environmental Justice Considerations**

Executive Order 12898 (59 FR 7629, February 16, 1994) requires that federal agencies, to the greatest extent practicable and permitted by law, identify and address disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations.<sup>166</sup> To identify environmental burdens and susceptible populations in underserved communities in the San Joaquin Valley nonattainment area and to better understand the context of our proposed action on these communities, we conducted a screening-level analysis for PM<sub>2.5</sub> in the San Joaquin Valley using the EPA’s environmental justice (EJ)

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<sup>164</sup> EPA’s Reasoned Justification TSD, section IV.B.

<sup>165</sup> EPA’s Reasoned Justification TSD, pp. 144-146.

<sup>166</sup> 59 FR 7629 (February 16, 1994).

screening and mapping tool (“EJSCREEN”).<sup>167</sup> The results of this analysis are being provided for informational and transparency purposes.

Our screening-level analysis indicates that all eight counties in the San Joaquin Valley score above the national average for the EJSCREEN “Demographic Index” (i.e., ranging from 48% in Stanislaus County to 61% in Tulare County, compared to 36% nationally).<sup>168, 169</sup> The Demographic Index is the average of an area’s percent minority and percent low income populations, i.e., the two populations explicitly named in Executive Order 12898.<sup>170</sup> All eight counties also score above the national average for demographic indices of “linguistically isolated population” and “population with less than high school education.”

With respect to pollution, all eight counties (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare) score at or above the 97<sup>th</sup> percentile nationally for the PM<sub>2.5</sub> index and seven of the eight counties in the San Joaquin Valley score at or above the 90<sup>th</sup> percentile nationally for the PM<sub>2.5</sub> EJ index (i.e., each county except Stanislaus County, which scores at the 87<sup>th</sup> percentile nationally), which is a combination of the Demographic Index and the PM<sub>2.5</sub> index.<sup>171</sup> Most counties also scored above the 80<sup>th</sup> percentile for each of 11 additional

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<sup>167</sup> EJSCREEN provides a nationally consistent dataset and approach for combining environmental and demographic indicators. EJSCREEN is available at <https://www.epa.gov/ejscreen/what-ejscreen>. The EPA used EJSCREEN to obtain environmental and demographic indicators representing each of the eight counties in the San Joaquin Valley. We note that the indicators for Kern County are for the entire county. While the indicators might have slightly different numbers for the San Joaquin Valley portion of the county, most of the county’s population is in the San Joaquin Valley portion, and thus the differences would be small. These indicators are included in EJSCREEN reports that are available in the rulemaking docket for this action.

<sup>168</sup> EPA Region IX, “EJSCREEN Analysis for the Eight Counties of the San Joaquin Valley Nonattainment Area,” August 2022.

<sup>169</sup> By comparison, the eight counties score above the State average for the EJSCREEN “Demographic Index” (i.e., ranging from 52% in Stanislaus County to 71% in Tulare County, compared to 47% in California).

<sup>170</sup> EJSCREEN reports environmental indicators (e.g., air toxics cancer risk, Pb paint exposure, and traffic proximity and volume) and demographic indicators (e.g., people of color, low income, and linguistically isolated populations). The score for a particular indicator measures how the community of interest compares with the state, the EPA region, or the national average. For example, if a given location is at the 95<sup>th</sup> percentile nationwide, this means that only five percent of the U.S. population has a higher value than the average person in the location being analyzed. EJSCREEN also reports EJ indexes, which are combinations of a single environmental indicator with the EJSCREEN Demographic Index. For additional information about environmental and demographic indicators and EJ indexes reported by EJSCREEN, see EPA, “EJSCREEN Environmental Justice Mapping and Screening Tool – EJSCREEN Technical Documentation,” section 2 (September 2019).

<sup>171</sup> By comparison, two counties score at or above the 97<sup>th</sup> percentile in California for the PM<sub>2.5</sub> index and five counties score at or above the 80<sup>th</sup> percentile in California for the PM<sub>2.5</sub> EJ index (rather than seven of eight counties that score at or above the 90<sup>th</sup> percentile nationally).

EJ indices included in the EPA's EJSCREEN analysis. In addition, several counties scored above the 90<sup>th</sup> percentile for certain EJ indices, including, for example, the Ozone EJ Index (Fresno, Kern, Madera, Merced, and Tulare Counties), the National Air Toxics Assessment (NATA) Respiratory Hazard EJ Index (Madera and Tulare Counties), and the Wastewater Discharge Indicator EJ Index (Merced, San Joaquin, Stanislaus, and Tulare Counties).<sup>172</sup>

We have considered the geographic scope of each of the contingency measures that the EPA proposes to approve herein on PM<sub>2.5</sub> concentrations in each county of the San Joaquin Valley, as well as other environmental considerations that pertain to applicable pollutant (i.e., combustion PM<sub>2.5</sub>, dust PM<sub>2.5</sub>, or NO<sub>x</sub>) and the applicable source category or categories.

For residential wood burning, upon a first triggering event, the Rule 4901 contingency measure would lower the No Burn (i.e., curtailment) thresholds for the five non-hot spot counties (Kings, Merced, San Joaquin, Stanislaus, and Tulare) to match the tighter No Burn thresholds for the three hot spot counties (Fresno, Madera, and Kern). A prominent effect of this change would be to provide similar protections to people in the two southern-most non-hot spot counties that record among the highest year-to-year PM<sub>2.5</sub> design values in the San Joaquin Valley (i.e., Kings County, including Corcoran and Hanford monitoring sites, and Tulare County, including Visalia monitoring site).<sup>173</sup> Were No Burn days to be called in Kings or Tulare County according to the more stringent thresholds, we also anticipate there would be smaller but still beneficial effect in the adjacent Fresno or Kern Counties, depending on the meteorology of the day. Upon a second triggering event, the Rule 4901 contingency measure would further lower the curtailment threshold for unregistered devices in all eight counties of the San Joaquin Valley. This would

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<sup>172</sup> Notably, Tulare County scores above the 90<sup>th</sup> percentile on six of the 12 EJ indices in the EPA's EJSCREEN analysis, including the PM<sub>2.5</sub> EJ Index, which is the highest count among all San Joaquin Valley counties.

<sup>173</sup> For example, the certified 2020-2022 PM<sub>2.5</sub> design value for Visalia (AQS Site ID 061072003) is 18.4 µg/m<sup>3</sup> for the 2012 annual PM<sub>2.5</sub> NAAQS and 65 µg/m<sup>3</sup> for the 2006 24-hour PM<sub>2.5</sub> NAAQS. EPA design value workbook dated May 23, 2023, "PM25\_DesignValues\_2020\_2022\_FINAL\_05\_23\_23.xlsx," worksheets "Table5a. Site Status Ann" and "Table5b.Site Status 24hr." The certified design value includes all available data; no data flagged for exceptional events have been excluded. The EPA's Air Quality System (AQS) contains ambient air pollution data collected by federal, state, local, and tribal air pollution control agencies from thousands of monitors. More information is available at <https://www.epa.gov/aqs>.

provide further protections to people throughout the area, including both hot-spot and non-hot spot counties, including those that record among the highest year-to-year PM<sub>2.5</sub> design values in the San Joaquin Valley.<sup>174</sup>

Where these direct PM<sub>2.5</sub> emission reductions from combustion occur, we also note that they do not require further chemical transformation in the atmosphere to form PM<sub>2.5</sub> (i.e., the benefit is immediate) and, as they include fine particulate matter under one micron and toxic air chemicals, the reduction of such sub-micron particles would similarly reduce exposure of all residents in these areas, including minority and low-income populations to these environmental stressors. These reductions would also specifically reduce emissions on the winter days with the highest ambient PM<sub>2.5</sub> levels.

For open areas, the Rule 8051 contingency measure, if triggered, would lower the applicability threshold for the rural open area requirements of Rule 8051 (i.e., for parcels having at least 1,000 square feet of disturbed soil) from 3.0 acres to 1.0 acre. Based on our analysis of land use to date, such rural open areas are found in all counties of the San Joaquin Valley, though with some variation from county to county consistent with overall land use types (e.g., San Joaquin County has the smallest proportion of rural open areas, while Madera County has the highest proportion of rural open areas). Furthermore, there is variation in the number of rural open areas that would be newly subject to the rule, i.e., those between 1.0 to 3.0 acres in size (e.g., Kern County has the most total rural open area acreage from parcels between 1.0 to 3.0 acres in size, while Tulare County has the least). Given the overall land use and emission factors,<sup>175</sup> and assuming roughly equal levels of activity in each county (i.e., soil disturbances

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<sup>174</sup> For example, the certified 2020-2022 PM<sub>2.5</sub> design value for Bakersfield-Airport (Planz) (AQS Site ID 060290016) is 18.8 µg/m<sup>3</sup> for the 2012 annual PM<sub>2.5</sub> NAAQS and 61 µg/m<sup>3</sup> for the 2006 24-hour PM<sub>2.5</sub> NAAQS. EPA design value workbook dated May 23, 2023, “PM25\_DesignValues\_2020\_2022\_FINAL\_05\_23\_23.xlsx,” worksheets “Table5a. Site Status Ann” and “Table5b.Site Status 24hr.” The certified design value includes all available data; no data flagged for exceptional events have been excluded.

<sup>175</sup> For further discussion of the land use and emission factors for open areas in the San Joaquin Valley, see EPA Region IX, “Technical Support Document, Proposed Contingency Measures Federal Implementation Plan for the Fine Particulate Matter Standards for San Joaquin Valley, California,” July 2023, section III.E.

over 1,000 square feet), we anticipate that the proposed contingency measure would provide air quality benefits in all counties of the San Joaquin Valley, with most air quality benefits occurring in Fresno, Kern, Kings, and Madera Counties.

Given that Rule 8051 for open areas was originally introduced as a PM<sub>10</sub> control measure, we anticipate that the proposed measure would provide co-benefits to limiting PM<sub>10</sub> levels in the San Joaquin Valley, with the same geographical distribution as discussed herein for direct PM<sub>2.5</sub> emission reductions.<sup>176</sup>

Lastly, we anticipate that the Smog Check Contingency Measure (discussed in more detail in our separate proposed rule),<sup>177</sup> if triggered, would reduce NO<sub>x</sub> and VOC emissions from light-duty vehicles throughout the San Joaquin Valley. Such emission reductions would provide air quality benefits in all counties of the San Joaquin Valley and especially along roadways with the highest vehicle miles traveled, including the major freeways (e.g., California Highway 99) and urban areas (e.g., Bakersfield, Fresno, Stockton, Visalia) that intersect minority populations and low-income populations throughout the San Joaquin Valley.

## **VII. Proposed Action and Request for Public Comment**

For the reasons described in sections IV and V of this document, and under CAA section 110(k)(3), the EPA proposes to approve two SIP revisions submitted by CARB on June 8, 2023, and October 16, 2023, for the San Joaquin Valley to address the contingency measure SIP requirements for San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS. The SIP submissions include the contingency measure plan element for San Joaquin Valley for the relevant PM<sub>2.5</sub> NAAQS (referred to herein as the “SJV PM<sub>2.5</sub> Contingency

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<sup>176</sup> We also note that environmental and community groups have recommended that fugitive dust sources in the San Joaquin Valley be subject to specific requirements rather than having the option to select from a menu of control requirements in Rule 8011 (where the definition for open areas is found). Letter dated May 18, 2022, from Tom Frantz, Association of Irrigated Residents, et al., to Michael S. Regan, EPA Administrator, Attachment B, 7. The proposed measure would not alter the existing structure but rather tighten the applicability threshold for rural open areas.

<sup>177</sup> EPA, “Air Plan Revision; California; Motor Vehicle Inspection and Maintenance Program Contingency Measure,” Proposed rule, published in this *Federal Register*.

Measure SIP”) and two specific contingency measures, referred to herein as the Residential Wood Burning Contingency Measure and the Rural Open Areas Contingency Measure. We are proposing to approve the SJV PM<sub>2.5</sub> Contingency Measure SIP as meeting the applicable requirements of CAA section 172(c)(9) and 40 CFR 51.1014 for San Joaquin Valley for the applicable PM<sub>2.5</sub> NAAQS based on the infeasibility demonstrations that are provided in the submission and based on our proposed approval of the contingency measures. The Residential Wood Burning Contingency Measure and the Rural Open Areas Contingency Measure are included in amendments to SJVUAPCD Rule 4901 (“Wood Burning Fireplaces and Wood Burning Heaters”) and Rule 8051 (“Open Areas”), respectively. We are proposing to approve the two specific contingency measures because they meet the requirements under CAA section 172(c)(9) and 40 CFR 51.1014 for such measures. We will accept comments from the public on this proposal until **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

If we finalize this action as proposed, our action will resolve the disapproval of the contingency measure plan elements for San Joaquin Valley for the 1997 annual, 2006 24-hour, and 2012 annual PM<sub>2.5</sub> NAAQS, and our action will be codified through revisions to 40 CFR 52.220, “Identification of plan--in part” and 40 CFR 52.237, “Part D Disapproval.” In conjunction with our final approval into the SIP of the submitted amended versions of SJVUAPCD Rules 4901 and 8051, we would remove from the SIP the previously approved versions of SJVUAPCD Rules 4901 and 8051. Lastly, if we finalize our action as proposed, our FIP obligation arising from our December 6, 2018 finding of failure to submit will be terminated, and thus, we will no longer be obligated to finalize our August 8, 2023 proposed contingency measure FIP for San Joaquin Valley.

### **VIII. Incorporation by Reference**

In this rulemaking, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the

EPA is proposing to incorporate by reference SJVUAPCD Rule 4901 (“Wood Burning Fireplaces and Wood Burning Heaters”), amended May 18, 2023, and Rule 8051 (“Open Areas”), amended September 21, 2023, identified and discussed in sections IV.A and IV.B of this preamble and that include revisions to meet the contingency measure requirements under part D of title I of the CAA. The EPA has made, and will continue to make, these materials available through <https://www.regulations.gov> and at the EPA Region IX Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

### **IX. 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 a state plan and related measures 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 14094 (88 FR 21879, April 11, 2023);
- 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 subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it proposes to approve a state program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- 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.

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).

Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, Feb. 16, 1994) directs Federal agencies to identify and address “disproportionately high and adverse human health or environmental effects” of their actions on minority populations and low-income populations to the greatest extent practicable and permitted by law. The EPA defines environmental justice (EJ) as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” The EPA further defines the term fair treatment to mean that “no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.”

The EPA performed an environmental justice analysis, as is described in section VI of this proposed rule, titled “Environmental Justice Considerations.” The analysis was done for the purpose of providing additional context and information about this rulemaking to the public, not as a basis of the action. Due to the nature of the action being taken here, this action is expected to have a neutral to positive impact on the air quality of the affected area. In addition, there is no information in the record upon which this decision is based inconsistent with the stated goal of E.O. 12898 of achieving environmental justice for people of color, low-income populations, and Indigenous peoples.

**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 dioxide, Volatile organic compounds.

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

Dated: December 12, 2023.

Martha Guzman Aceves,  
*Regional Administrator,*  
*Region IX.*

[FR Doc. 2023-27686 Filed: 12/19/2023 8:45 am; Publication Date: 12/20/2023]