



May 14, 2024

Dr. Steven S. Cliff, Executive Officer  
California Air Resources Board  
P.O. Box 2815  
Sacramento, CA 95812

**RE: Attainment Date Extension for the 1997 Annual PM<sub>2.5</sub> Standard for the San Joaquin Valley Nonattainment Area**

The Honorable Dr. Cliff,

The San Joaquin Valley Air Pollution Control District (District) submits this documentation in support of the State's request to the United States Environmental Protection Agency (EPA) for a one-year extension of the attainment date for the 1997 annual PM<sub>2.5</sub> standard from December 31, 2023, to December 31, 2024. The District is submitting the following information in support of this request in accordance with statutory requirements as defined in Section 172(a)(2)(C) of the Clean Air Act (CAA).

**BACKGROUND**

EPA designated the San Joaquin Valley (Valley) as nonattainment of 1997 annual PM<sub>2.5</sub> standard effective April 2005, and finalized its implementation rule effective May 29, 2007, consistent with CAA Subpart 1.<sup>1</sup> On April 30, 2008, the District adopted the *2008 PM<sub>2.5</sub> Plan* demonstrating attainment of the 1997 standard by April 5, 2015, and satisfying all federal implementation requirements.<sup>2</sup> EPA approved this plan effective January 9, 2012.<sup>3</sup> Subsequently, on January 4, 2013, the D.C. Circuit Court ruled that EPA erred by solely using CAA Subpart 1 in establishing its PM<sub>2.5</sub> implementation rule, without consideration of the particulate matter (PM) specific provisions in Subpart 4.<sup>4</sup>

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<sup>1</sup> EPA. *Air Quality Designations and Classifications for the Fine Particles (PM<sub>2.5</sub>) National Ambient Air Quality Standards*. 70 Fed. Reg. 3, pp. 944-1019. (2005, January 5). (to be codified 40 CFR Part 81). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2005-01-05/pdf/05-1.pdf>

<sup>2</sup> SJVAPCD. 2008 PM<sub>2.5</sub> Plan. (April 30, 2008). Retrieved from: <https://ww2.valleyair.org/rules-and-planning/air-quality-plans/particulate-matter-plans/2008-pm25-plan/>

<sup>3</sup> EPA. *Approval and Promulgation of Implementation Plans; California; 2008 San Joaquin Valley PM<sub>2.5</sub> Plan and 2007 State Strategy*. 76 Fed. Reg. 217, pp. 69896-69926. (2011, November 9). (to be codified 40 CFR Part 50). Retrieved from: <http://www.gpo.gov/fdsys/pkg/FR-2011-11-09/pdf/2011-27232.pdf>

<sup>4</sup> *Nat. Res. Def. Council v. E.P.A.*, 706 F.3d 428 (D.C. Cir. 2013)

**Samir Sheikh**

Executive Director/Air Pollution Control Officer

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585

Subpart 4 differs from Subpart 1 in its attainment plan deadlines, the required level of emissions controls, its handling of PM precursors, and the classification of nonattainment areas and corresponding attainment deadlines. Following the 2013 D.C. Circuit Court ruling, EPA began redirecting all PM<sub>2.5</sub> implementation efforts to be consistent with Subpart 4, but under a truncated schedule as compared to what would have occurred had EPA initially designated nonattainment areas under Subpart 4 in 2005. In June 2014, EPA classified the Valley as a Moderate nonattainment area under Subpart 4 with an attainment date of December 31, 2014.<sup>5</sup> In August 2014, the District and CARB submitted a formal request to EPA to reclassify the Valley to Serious nonattainment. EPA granted the Valley's Serious reclassification request in April 2015, setting a new attainment date of December 31, 2015.<sup>6</sup>

After implementing the commitments in the *2008 PM<sub>2.5</sub> Plan*, the Valley had been on the verge of attaining the 1997 PM<sub>2.5</sub> Standard. However, due to the extreme drought, wildfires, stagnation, strong inversions, and historically dry conditions experienced over the winter of 2013-2014, it was clear in 2014 that attainment by 2015 (based on 2013-2015 data) would not be possible.

The District and CARB adopted the *2015 PM<sub>2.5</sub> Plan for the 1997 PM<sub>2.5</sub> Standard (2015 PM<sub>2.5</sub> Plan)* in 2015 with an MSM demonstration and an attainment date extension request of 2020, as provided for in Subpart 4. In order for EPA to grant an attainment date extension, the state first had to demonstrate it had satisfied all conditions under CAA section 188(e), including meeting all requirements and commitments pertaining to the area in the applicable implementation plan. The District worked closely with EPA for over a year in developing the *2015 PM<sub>2.5</sub> Plan* to address concerns and ensure CAA requirements were satisfied. The plan was adopted by CARB on May 21, 2015 and included a demonstration that CARB and the District had met all commitments of the *2008 PM<sub>2.5</sub> Plan*. The *2015 PM<sub>2.5</sub> Plan*'s comprehensive control strategy would achieve a 38% reduction in emissions of nitrogen oxides (NO<sub>x</sub>), the key precursor to PM<sub>2.5</sub> formation in the Valley, as well as significant reductions in directly emitted PM<sub>2.5</sub> between 2012 and 2020.<sup>7</sup>

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<sup>5</sup> EPA. *Identification of Nonattainment Classification and Deadlines for Submission of State Implementation Plan (SIP) Provisions for the 1997 Fine Particle (PM<sub>2.5</sub>) National Ambient Air Quality Standard (NAAQS) and 2006 PM<sub>2.5</sub> NAAQS; Final Rule*. 79 Fed. Reg. 105, pp. 31566-31782. (2014, June 2). (to be codified 40 CFR Chapter 1). Retrieved from: <http://www.gpo.gov/fdsys/pkg/FR-2014-06-02/pdf/2014-10395.pdf>

<sup>6</sup> EPA. *Designation of Areas for Air Quality Planning Purposes; California; San Joaquin Valley; Reclassification as Serious Nonattainment for the 1997 PM<sub>2.5</sub> Standard*. 80 Fed. Reg. 66, pp. 18528-18535. (2015, April 7). (to be codified 40 CFR Parts 52 and 81). Retrieved from: <http://www.gpo.gov/fdsys/pkg/FR-2015-04-07/pdf/2015-07765.pdf>

<sup>7</sup> SJVAPCD. *2015 Plan for the 1997 PM<sub>2.5</sub> Standard*. (April 16, 2015). Retrieved from: <https://ww2.valleyair.org/rules-and-planning/air-quality-plans/particulate-matter-plans/2015-plan-for-the-1997-pm25-standard/>

EPA formally proposed to approve portions of the *2015 PM2.5 Plan* and the attainment date extension on February 9, 2016.<sup>8</sup> EPA did not ultimately approve the Plan by the required timeframe,<sup>9</sup> resulting in the need to submit an updated “5% Plan” and attainment deadline pursuant to CAA Section 189(d), EPA’s 2016 PM2.5 Implementation Rule,<sup>10</sup> and 40 CFR Section 51.1003(c). In order to allow for robust stakeholder involvement and harmonization of SIP elements across multiple PM2.5 standards, the District Governing Board adopted the 5% Plan on November 15, 2018, with a proposed attainment target of December 31, 2020 (“*the 2018 PM2.5 Plan*”). This Plan was subsequently adopted by CARB on January 24, 2019. Together with CARB’s October 25, 2018 San Joaquin Valley Supplement to the 2016 State Strategy (“*the State Supplement*”), *the 2018 PM2.5 Plan* was submitted by CARB to EPA on May 10, 2019. Since then, CARB and the District have been actively implementing the control strategies outlined in the Plan.

Subsequent to adoption of the *2018 PM2.5 Plan*, the District and CARB also prepared a clean data determination to confirm the Valley’s attainment of the 1997 24-hour PM2.5 standard of 65 µg/m<sup>3</sup>. Effective February 28, 2022, EPA determined the Valley had attained the 1997 24-hour PM2.5 standard and that CAA Section 172(c)(9) requirement for contingency measures no longer applied to the 24-hour PM2.5 standard due to its attainment by the applicable attainment date.

While significant progress was made towards attainment for the 1997 annual PM2.5 standard under the *2018 PM2.5 Plan*, EPA found that unprecedented wildfire impacts and air monitoring data completeness issues at the Bakersfield-Planz site prevented it from reaching a finding of attainment of the annual standard by the December 31, 2020 attainment deadline. Therefore, on July 22, 2021, EPA proposed to disapprove the portions of the *2018 PM2.5 Plan* related to the 1997 annual PM2.5 standard, which was finalized on November 26, 2021.<sup>11</sup> Due to EPA’s proposed disapproval of the portions of the *2018 PM2.5*

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<sup>8</sup> EPA. *Approval and Disapproval of California Air Plan; San Joaquin Valley Serious Area Plan and Attainment Date Extension for the 1997 PM2.5 NAAQS*. 81 Fed. Reg. 26, pp. 6936-6986. (2016, February 9). (to be codified at 40 CFR parts 52 and 81). Retrieved from: <https://www.gpo.gov/fdsys/pkg/FR-2016-02-09/pdf/2016-02325.pdf>

<sup>9</sup> EPA. *Denial of Request for Extension of Attainment Date for 1997 PM2.5 NAAQS; California; San Joaquin Valley Serious Nonattainment Area; Final Rule*. 81 Fed. Reg. 194, pp. 69396-69401. (October 6, 2016). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2016-10-06/pdf/2016-24082.pdf#page=1>

<sup>10</sup> EPA. *Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements; Final Rule*. 81 Fed. Reg. 164, pp. 58010-58162. (2016, August 24). (to be codified at 40 CFR Parts 50, 51, and 93). Retrieved from: <https://www.gpo.gov/fdsys/pkg/FR-2016-08-24/pdf/2016-18768.pdf>

<sup>11</sup> EPA. *Partial Approval and Partial Disapproval of Air Quality Implementation Plans; California; San Joaquin Valley Serious Area and Section 189(d) for Attainment of the 1997 Annual PM2.5 NAAQS*. 86 Fed.

*Plan* that address the 15 µg/m<sup>3</sup> annual standard, the District and CARB developed and submitted a SIP revision (*2021 SIP Revision*) to update the attainment demonstration for the 15 µg/m<sup>3</sup> standard from the previous projected attainment date of December 31, 2020, to a new demonstrated attainment deadline of December 31, 2023.<sup>12</sup> On December 14, 2023, EPA approved portions of the *2018 PM2.5 Plan*, the *State Supplement*, and *2021 SIP Revision* as they pertain to the Serious nonattainment area and CAA Section 189(d) requirements for the 1997 annual PM2.5 standard, except for the requirement for contingency measures.<sup>13</sup> On December 20, 2023, EPA proposed to approve the District's contingency measures.<sup>14</sup>

As a result of the District's and CARB's implementation of the *2018 PM2.5 Plan*, the *State Supplement*, and the *2021 SIP Revision*, the San Joaquin Valley observed record-breaking air quality improvement with respect to annual PM2.5 values throughout 2023. However, the 1997 annual PM2.5 design value for a given year is the 3-year average (ending in that year) of the annual mean PM2.5 concentrations, where the annual mean is calculated as the average of the quarterly average PM2.5 concentration for each calendar quarter (i.e., January-March, April-June, July-September, October-December). The District and CARB are currently evaluating potential documentation to remove exceptional events (including wildfire impacts) from the 2021-2023 period, as allowed under the CAA and EPA policies. Although this analysis is ongoing, the 2023 annual mean PM2.5 concentrations alone were below the level of the standard across all air monitoring sites in the Valley, and therefore a pathway for an extension of the attainment date is available.

## **EXTENSION CRITERIA**

CAA Section 172(a)(2)(C) allows an extension of the attainment date by one additional year, provided that the following criteria are met:

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Reg. 225. pp. 67329–67343 (2021, Nov. 26). (to be codified 40 CFR Part 52) ). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2021-11-26/pdf/2021-25617.pdf>

<sup>12</sup> SJVAPCD. 2021 SIP Revision. (August 19, 2021) Retrieved from: <https://www2.valleyair.org/media/spjlsxt/attainment-plan-revision.pdf>

<sup>13</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*. 88 Fed. Reg. 239, pp. 86581-86608. (2023, Dec. 14). (to be codified 40 CFR Part 52). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2023-12-14/pdf/2023-27088.pdf>

<sup>14</sup> EPA. *Clean Air Plans; Contingency Measures for the Fine Particulate Matter Standards; San Joaquin Valley, California. Proposed Rule*. 88 Fed. Reg. 243. pp. 87988-88012. (2023, December 20). (to be codified 40 CFR Part 52). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2023-12-20/pdf/2023-27686.pdf>

1. The State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and
2. In accordance with guidance published by the Administrator, no more than a minimal number of exceedances of the relevant national ambient air quality standard has occurred in the area in the year preceding the Extension Year.

Consistent with CAA Section 172(a)(2)(C) and PM2.5 clean data recorded in 2023, the District, in close coordination with CARB, is requesting a 1-year extension, establishing an updated attainment target date for the 1997 annual PM2.5 standard of December 31, 2024. The following sections demonstrate fulfillment of these criteria, including compliance with requirements and commitments related to this standard, and clean data for 2023.

### **Criteria 1: Implementation of Requirements and District Commitments**

The Valley's *2018 PM2.5 Plan*, the *State Supplement*, and *2021 SIP Revision* demonstrated how the District's rules continued to meet or exceed measures identified by EPA as reasonably available control measures (RACM), best available control technology (BACT), and best available control measures (BACM). These submittals included an attainment approach that laid out the District's and CARB's strategy for expeditious attainment of multiple PM2.5 standards and an analysis and demonstration of federal requirements for Serious areas in accordance with CAA Sections 189(b) and 189(d).

To satisfy the requirements of Subpart 1, the District and CARB included plan provisions that require reasonable further progress (RFP), a comprehensive emissions inventory of actual emissions from all sources of relevant pollutants, and contingency measures. In compliance with the provisions of Subpart 4, the plan included: (1) modeled attainment demonstration; (2) modeling protocol; (3) RACM demonstration; (4) BACM/BACT review; (5) mobile source control measure analyses; (6) new source review and emission reduction credits; (7) 5% plan control strategy in accordance with CAA Section 189(d) and 40 CFR sections 51.1003(c)(1)(iii) and 51.1010(c); (8) stationary source control measure analyses; (9) quantitative milestones; (10) precursor demonstration; and (11) motor vehicle emissions budgets.

The CAA requires states to identify quantitative milestones to be achieved every three years, which demonstrate RFP towards attainment of a standard. The District and CARB have collaborated in the development and submittal of Quantitative Milestone Reports (QMR) to address the 1997 annual PM2.5

standard. The QMRs for the years 2017, 2020, and 2023 were submitted by CARB to EPA on December 20, 2018, March 30, 2021, and March 19, 2024, respectively. All QMRs were submitted in a timely manner to EPA, contained the required components, and demonstrated that the Valley's milestones for purposes of attaining the 1997 PM2.5 standards had been met.

On November 26, 2021, EPA approved portions of the SIP revisions submitted by CARB to address CAA requirements for the 1997 annual PM2.5 standard, in particular finding that the Valley's adopted control strategy was adequate to meet the RFP requirement. EPA also approved the 2013 base year emissions inventories.

An attainment plan revision for the 1997 annual PM2.5 standard to address CAA requirements except for contingency measures was submitted by CARB to EPA on November 8, 2021. EPA issued a notice of adequacy on February 10, 2022, and determined the motor vehicle emissions budgets submitted in the SIP revision were adequate for transportation conformity purposes for the 1997 annual PM2.5 standard.<sup>15</sup>

The District adopted the PM2.5 contingency measure SIP revision, in collaboration with CARB, and an amendment to Rule 4901 in May 2023, which were submitted by CARB to EPA in June 2023. The District followed with amending Rule 8051 in September of 2023 to include a contingency measure. In July of the same year, EPA proposed to approve the District's and CARB's SIP revision for the 1997 annual PM2.5 standard, including the demonstration that the area would attain by December 31, 2023.<sup>16</sup>

In connection with its December 14, 2023 approval of the *2018 PM2.5 Plan, Supplement, and 2021 SIP Revision*, EPA also approved the 2020 and 2023 motor vehicle emissions budgets and the trading mechanism for use in transportation conformity analyses.<sup>17</sup> As noted above, on December 20, 2023, EPA proposed to approve the area's two specific contingency measures for the

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<sup>15</sup> EPA. *Adequacy Status of Motor Vehicle Emissions Budgets in 1997 Annual PM2.5 Serious Area and Section 189(d) Attainment Plan Revision for San Joaquin Valley; California; Notice of Adequacy*. 87 Fed. Reg. 28, pp. 7834-7835. (2022, Feb.10). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2022-02-10/pdf/2022-02771.pdf>

<sup>16</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*. 88 Fed. Reg. 134, pp. 45276-45323. (2023, July 14). (to be codified 40 CFR Part 52). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2023-07-14/pdf/2023-14687.pdf>

<sup>17</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*. 88 Fed. Reg. 239, pp. 86581-86608. (2023, Dec. 14). (to be codified 40 CFR Part 52). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2023-12-14/pdf/2023-27088.pdf>

1997 annual standard that would apply to residential wood burning heaters and fireplaces, and to non-agricultural, rural open areas.<sup>18</sup>

In addition to the above-summarized elements of the *2018 PM2.5 Plan*, the District's and CARB's *2021 SIP Revision* included a new commitment to achieve additional emissions reductions from residential wood burning, as summarized below.

- ***Rule 4901 - Wood Burning Fireplaces and Wood Burning Heaters:***  
The Plan included a commitment to reduce PM2.5 emissions from residential wood burning by approximately 0.20 tons per day (tpd) of PM2.5. In accordance with the Plan commitment, the District strengthened wood burning curtailment levels through an amendment of District Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters) in June 2019. The enhancements to Rule 4901 achieve 0.20 tpd of PM2.5 emission reductions in 2023, as approved by EPA on July 22, 2020.

As demonstrated above, the District has met its commitments in the *2018 PM2.5 Plan* and *2021 SIP Revision* for the 1997 annual PM2.5 standard, and therefore the requirements in CAA Section 172(a)(2)(C)(i) have been satisfied.

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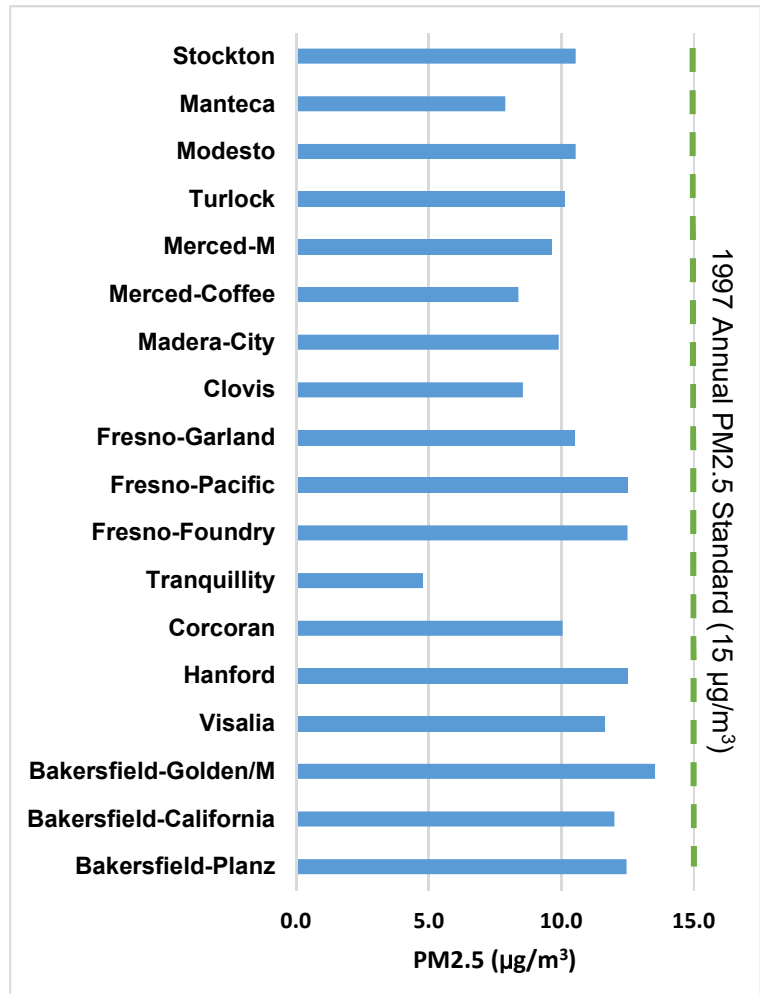
<sup>18</sup> EPA. *Clean Air Plans; Contingency Measures for the Fine Particulate Matter Standards; San Joaquin Valley, California*. 88 Fed. Reg. 243, pp. 87988-88012. (2023, Dec.20). (to be codified 40 CFR Part 52). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2023-12-20/pdf/2023-27686.pdf>

## Criteria 2: Valley-Wide Progress Towards Attainment of the 1997 PM2.5 Standards

The District’s and CARB’s aggressive control measures have achieved significant reductions of PM2.5 and NOx throughout the Valley, leading to measurable progress towards attainment of the health-based PM2.5 standards, with the Valley now in attainment of the 65 µg/m³ standard. Additionally, certified ambient air monitoring data for 2023 indicates that the Valley is now measuring annual average PM2.5 concentrations below the 15 µg/m³ standard across all air monitoring sites in the Valley (see below illustrative figure). This positive progress has already continued into 2024, leading to confidence that the Valley will be able to successfully demonstrate attainment of the 15 µg/m³ standard.

**Figure 1 and Table 1 2023 PM2.5 Annual Average by Site (North to South)**

Site	2023
Stockton	10.7
Manteca	7.9
Modesto	10.5
Turlock	10.1
Merced-M St	9.6
Merced-Coffee	8.4
Madera-City	9.9
Clovis	8.6
Fresno-Garland	10.5
Fresno-Pacific	12.6
Fresno-Foundry	12.5
Tranquillity	4.8
Corcoran	10.1
Hanford	12.5
Visalia	11.7
Bakersfield-Golden/M	13.6
Bakersfield-California	12.0
Bakersfield-Planz	12.5

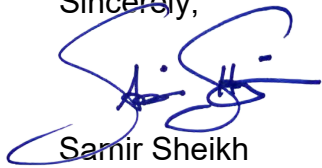




The District submits this information in support of the State's extension request for the 1997 annual PM2.5 standard. The information provided in this letter demonstrates that the District satisfies all statutory requirements as set forth by Section 172(a)(2)(C) of the CAA, and, in combination with CARB's demonstration, therefore qualifies for a one-year extension for the 1997 annual PM2.5 standard. The District appreciates the collaboration with CARB in developing the State's request to EPA.

Should you have any questions, please contact Sheraz Gill, Deputy Air Pollution Control Officer, at (559) 230-6000 or at [sheraz.gill@valleyair.org](mailto:sheraz.gill@valleyair.org).

Sincerely,



Samir Sheikh  
Executive Director/APCO