

APPENDIX E
Approved Waivers

B. Approval of the SCAQMD Request for PM_{2.5} FEM Waiver

In the 2023 annual network plan for SCAQMD, your agency requested EPA’s approval to consider the 2020-2022 PM_{2.5} data from your continuous federal equivalent method (FEM) monitors at the Compton (AQS ID: 06-037-1302-3) and Mira Loma (Van Buren) (AQS ID: 06-065-8005-3) sites as not eligible for comparison to the NAAQS. This enclosure is in response to your request and approves the monitors listed below for the specified dates as not eligible for comparison to the NAAQS (i.e., provides a waiver for NAAQS comparability).

According to 40 CFR 58.11(e), in order to be considered not eligible for comparison to the NAAQS, continuous FEM PM_{2.5} data must be shown to not meet the criteria in 40 CFR 53 Table C-4. These criteria describe the maximum allowable multiplicative and additive bias between a filter-based federal reference method (FRM) PM_{2.5} monitor and a Class III continuous FEM PM_{2.5} monitor operating at the same site. EPA based its evaluation on the criteria in 40 CFR 53 as described in the EPA memo dated April 20, 2013 and its attached document titled, “Instructions and Template for Requesting that data from PM_{2.5} Continuous FEMs are not compared to the NAAQS.”

We reviewed your request for 2020-2022 data and have determined that the Compton and Mira Loma (Van Buren) monitors do not meet the bias criteria in 40 CFR 53 and are approved as not eligible for comparison to the NAAQS for the noted time period:

Site Name	AQS ID-Parameter Code-POC	Begin Date	End Date
Compton	06-037-1302-3	07/01/2020	12/31/2022
Mira Loma (Van Buren)	06-065-8005-3	01/01/2020	12/31/2022

Your request stated that you consider the continuous PM_{2.5} data of sufficient quality to report to the AQI and you will be submitting the data to AIRNow. As such, it is appropriate to submit the data from the monitors and dates in the table above to AQS under the parameter code 88502.

In providing the waiver for the data in the timeframe listed above, EPA expects that SCAQMD will continue to work to improve the comparability of the continuous PM_{2.5} FEM monitors and filter-based monitors. Beyond the approved time period, if SCAQMD intends to submit data from these monitors under a parameter code other than 88101, an updated analysis of the biases for the FEM monitors should be included in future annual network plans for a renewed waiver approval.

In addition, since the intent of such a waiver is to allow more time for method and operational improvements to meet the required bias, SCAQMD must develop a performance assessment and improvement plan to be approved by EPA that describes how the agency will track the performance of this monitor on a quarterly or more frequent basis, as well as the activities SCAQMD intends to take to address any continuing performance issues.

Please work to make the changes in AQS described in this approval in a timely manner. The updated Los Angeles (Main Street) data meets the bias criteria in 40 CFR 53 and is eligible for comparison to the NAAQS for the time period of 01/01/2020 – 12/31/2022. As such, it is appropriate to submit the data from the Los Angeles (Main Street) monitor for these specified dates to AQS under the parameter code 88101. This will allow the AQS data record to accurately reflect monitors and design values relevant, and not relevant, for comparison to the NAAQS.

EPA Evaluation of the Request for Exclusion of PM_{2.5} Continuous FEM Data

2020-2022

Site Name	Site ID	Cont POC	Method Description	PM _{2.5} Cont. Analysis Begin Date	PM _{2.5} Cont Analysis End Date	Continuous/FRM Sampler pairs per season	Slope (m)	Intercept (y)	Meets bias requirement	Correlation (r)
<i>Sites with PM_{2.5} continuous FEMs that are collocated with FRMs:</i>										
Compton	06-037-1302	3	Met-One BAM 1020 w/VSCC	07/01/2020	12/31/2022	Winter = 177 Spring = 176 Summer = 263 Fall = 264 Total = 880	0.89	2.52	No	0.98
Mira Loma (Van Buren)	06-065-8005	3	Met-One BAM 1020 w/VSCC	01/01/2020	12/31/2022	Winter = 263 Spring = 259 Summer = 271 Fall = 259 Total = 1052	0.93	2.11	No	0.97

C. Approval of PAMS Ceilometer Waiver

This enclosure provides the U.S. Environmental Protection Agency's (EPA's) review and approval for the South Coast Air Quality Management District's (SCAQMD's) relocation of the ceilometer from the Central Los Angeles (CELA; AQS ID: 06-037-1103) Photochemical Air Monitoring Station (PAMS) site to the proposed North Hollywood site (NOHO; AQS ID: 06-037-4010) due to the CELA site's space limitations. On August 2, 2023, SCAQMD sent a letter to EPA with a description of this network change. Per 40 CFR part 58, Appendix D, 5(e) states, "[t]he EPA Regional Administrator may grant a waiver to allow representative meteorological data from nearby monitoring stations to be used to meet the meteorological requirements in paragraph 5(b) where the monitoring agency can demonstrate the data is collected in a manner consistent with EPA quality assurance requirements for these measurements."

As described in SCAQMD's letter, "ceilometer measurements are intended for more macro-scale application than are the surface meteorological measurements. Consequently, the location of the ceilometer site need not be associated with any particular PAMS surface site".⁸ The differences in horizontal and vertical distances between the two sites also appear to be reasonable with respect to the expected mixing layer heights (MLH) at each site.⁹ This relocation will not prevent SCAQMD from meeting 40 CFR part 58, Appendix D requirements. Based on consideration of this information, EPA approves SCAQMD's relocation of the ceilometer from the existing CELA PAMS site to the proposed NOHO site.

We also understand that you are working to upload the ceilometer data from the LAX Hastings site to the United Ceilometer Network and will do the same for the ceilometer data from the NOHO site once the ceilometer is operational. Also, please attach this enclosure and include the relevant measurement device and site information in your next Annual Air Quality Monitoring Network Plan.

⁸ U.S. EPA Technical Assistance Document for Sampling and Analysis of Ozone Precursors for the Photochemical Assessment Monitoring Stations Program, EPA-454/B-19-004, § 8.8.3, April 2019.

⁹ Scarino, A. J., M. D. Obland, J. D. Fast, S. P. Burton, R. A. Ferrare, C. A. Hostetler, L. K. Berg, B. Lefer, C. Haman, J. W. Hair, R. R. Rogers, C. Butler, A. L. Cook and D. B. Harper (2014). "Comparison of mixed layer heights from airborne high spectral resolution lidar, ground-based measurements, and the WRF-Chem model during CalNex and CARES." *Atmos. Chem. Phys.* 14(11): 5547-5560.