AAPCA THE ASSOCIATION OF AIR POLLUTION CONTROL AGENCIES

March 12, 2026

Information Quality Guidelines Staff
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Re: RFC 26002 – Modification Requests for Federal Equivalent Methods (FEM) Monitors

To Whom It May Concern:

This letter is to transmit from the Association of Air Pollution Control Agencies (AAPCA)[1] correspondence regarding the Request for Correction (RFC) under the Information Quality Act (IQA) filed with U.S. Environmental Protection Agency (EPA) on January 6, 2026, by the NAAQS Regulatory Review & Rulemaking Coalition (NR3 Coalition).[2] State and local air agencies are co-regulators under the federal Clean Air Act (CAA) with important on-the-ground expertise, including serving as primary monitoring entities for the National Ambient Air Quality Standards (NAAQS). AAPCA member air agencies previously provided expert technical input to U.S. EPA and Teledyne Technologies Incorporated for improving data comparability between federal reference methods (FRM) and federal equivalent methods (FEM)[3] for ambient air monitoring of particulate matter (PM).[4]

Teledyne T640/T640X PM Mass Monitors received FEM designation from the U.S. EPA Office of Research & Development (ORD) in July 2016 and were widely adopted for continuous monitoring of ambient fine particulate matter ($PM_{2.5}$) by state and local air agencies throughout the nation.[5] State and local agencies rely on U.S. EPA designation of an instrument as "equivalent" to an FRM, which is generally the sole assurance of comparable performance.[6] Meeting data quality objectives is critical for collecting defensible ambient air data that will have important implications for implementing the NAAQS, including for attainment/nonattainment designations, state implementation plans (SIPs), exceptional events demonstrations, and permitting.

[1] AAPCA is a national, non-profit, consensus-driven organization focused on assisting state and local air quality agencies and personnel with implementation and technical issues associated with the federal Clean Air Act. Created in 2012, AAPCA represents 53 state and local air pollution control agencies, and senior officials from 21 state environmental agencies currently sit on the AAPCA Board of Directors. AAPCA is housed in Lexington, Kentucky as an affiliate of The Council of State Governments. More about AAPCA is at: www.cleanairact.org.

[2] See RFC 26002 – Modification Requests for Federal Equivalent Methods (FEM) Monitors.

[3] Methods for measuring ambient concentrations of specified air pollutants have been designated as "reference methods" or "equivalent methods" in accordance with 40 CFR Part 53. See U.S. EPA, "List of Designated Reference and Equivalent Methods," December 15, 2025.

[4] See AAPCA's letter to U.S. EPA and Teledyne Technologies Incorporated concerning PM monitoring method comparability of the Teledyne T640/T640X PM Mass Monitor FEM (December 20, 2024). See also AAPCA's letter to U.S. EPA Office of Air Quality Planning & Standards addressing particulate matter monitoring method comparability (November 23, 2022).

[5] See U.S. EPA's Supplemental Information on the EPA's Update of $PM_{2.5}$ Data from T640/T640X PM Mass Monitors (May 13, 2024). State and local agencies were "reporting data for about 400 T640 and T640X $PM_{2.5}$ FEMs in 2023."

[6] See 40 CFR Part 53 Subpart C – Procedures for Determining Comparability Between Candidate Methods and Reference Methods.

AAPCA's state and local air agency members observed that the Teledyne T640/X FEM instruments have a significantly high bias compared to FRM instruments. In 2024, Teledyne Technologies developed an adjustment algorithm that was approved by U.S. EPA and applied to AQS data,[7] but the adjustment did not adequately reduce the bias in the Teledyne T640/X $PM_{2.5}$ concentrations, resulting in annual $PM_{2.5}$ concentrations that are significantly higher compared to annual $PM_{2.5}$ concentrations measured with FRM monitors. AAPCA requested that Teledyne Technologies re-evaluate the bias adjustment algorithm implemented on the Teledyne T640/X instruments such that the comparability with the collocated FRM measurements result in an overall bias much closer to zero. AAPCA has received no notice from Teledyne Technologies that work to improve the instrument bias continues. As a result of the persisting bias, state and local air monitoring programs are invalidating the Teledyne T640/X measurements under federal quality assurance requirements and moving away from the Teledyne T640/X instruments.

Additionally, AAPCA member agencies identified a need to review and correct Teledyne T640/X measurements influenced by smoke from fires. U.S. EPA acknowledged that "with regard to exceptional events demonstrations, EPA anticipates the possibility that affected and adjusted T640 and T640X monitors also may have experienced event-influenced exceedances/violations."[8] AAPCA has received no notice of further efforts from Teledyne Technologies or U.S. EPA to improve instrument measurements impacted by smoke events. AAPCA also recommended that U.S. EPA reconsider retroactively correcting particulate matter with a diameter of 10 microns or smaller (PM_{10}) data. Teledyne's Network Data Alignment is applicable to PM_{10} measurements, and despite being potentially diminutive,[9] correcting the bias associated with PM_{10} data is important to some states and provides a more accurate dataset for regulatory, scientific, and public use.

The bias has created further problems given U.S. EPA's 2024 revised primary annual $PM_{2.5}$ NAAQS to 9.0 micrograms per cubic meter, or $\mu g/m^3$, [10] where there is widespread concern that an area might be designated nonattainment based on measured Teledyne T640/X $PM_{2.5}$ concentrations, when the area would have been designated attainment based on measured FRM $PM_{2.5}$ concentrations. AAPCA recommended to U.S. EPA Administrator Lee Zeldin that the Agency ought to give due consideration to the designations timeline and provide adequate time for attainment/nonattainment designations to be made with the best available data.[11] U.S. EPA has the option of taking up to one additional year to make initial area designations if the Administrator has insufficient information.[12] The deadline for U.S. EPA to promulgate final 2024 $PM_{2.5}$ NAAQS area designations was February 6, 2026. As of the date of this letter, U.S. EPA has not taken action to finalize initial area designations.

Developing and implementing the bias adjustment was a time- and resource-intensive process that resulted in the

[7] 89 Fed. Reg. 42874 (May 16, 2024). See AAPCA comments on U.S. EPA's Docket ID No. EPA-HQ-OAR-2023-0642; Proposed Update of $PM_{2.5}$ Data From T640/T640X PM Mass Monitors (March 15, 2024).
[8] U.S. EPA, "Proposal to Update PM2.5 Data from T640/T640X PM Mass Monitors," February 2024.
[9] See U.S. EPA's "Supplemental Information on the EPA's Update of $PM_{2.5}$ Data from T640/T640X PM Mass Monitors" (May 13, 2024).
[10] 89 Fed. Reg. 16202 (March 6, 2024).
[11] See AAPCA welcome letter to U.S. EPA Administrator Lee Zeldin (January 31, 2025).
[12] U.S. EPA's February 2024 memorandum on "Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard" indicates that "If the Administrator has insufficient information to make initial designations decisions in the 2-year time frame, the EPA may take up to 1 additional year to make initial area designations decisions."

delayed release of 2023 $PM_{2.5}$ design values.[13] Transparent, early engagement with state and local co-regulators is critical as U.S. EPA continues to further evaluate and improve the quality of data from FEMs operating in the national regulatory monitoring network.

Thank you for considering the Association's comments with respect to improving data quality from the Teledyne T640/T640X PM Mass Monitor FEM. If you have any questions, please contact Ms. Morgan Dickie, Executive Director, at mdickie@csg.org or (859) 244-8042.

Sincerely,

Morgan Dickie
Executive Director, AAPCA

[13] U.S. EPA released 2023 $PM_{2.5}$ Design Values on August 9, 2024, while design value reports for all other criteria pollutants were made available on June 12, 2024.