March 15, 2024

Mr. Brett Gantt
Air Quality Analysis Group, Air Quality Assessment Division
Office of Air Quality Planning and Standards (OAQPS)
Office of Air and Radiation (OAR)
U.S. Environmental Protection Agency (EPA)
109 T.W. Alexander Drive
Research Triangle Park, NC 27711

Submitted via the Federal eRulemaking Portal at https://www.regulations.gov

Subject: Docket ID No. EPA-HQ-OAR-2023-0642; Proposed Update of $PM_{2.5}$ Data From T640/T640X PM Mass Monitors

Dear Mr. Gantt:

The Association of Air Pollution Control Agencies (AAPCA)[1] appreciates the opportunity to comment on U.S. EPA's "Proposal to Update $PM_{2.5}$ Data from T640/T640X PM Mass Monitors."[2] U.S. EPA's proposed update directly impacts state and local air agencies, which have primary responsibility for monitoring the nation's air quality and will need to certify the Agency's retroactive correction of biased fine particulate matter ($PM_{2.5}$) data from Teledyne T640/T640X Particulate Matter (PM) Mass Monitors after applying a Network Data Alignment equation. This update will have important implications for implementing the 2024 $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS), including for attainment/nonattainment designations, state implementation plans (SIPs), exceptional events demonstrations, and permitting.

In general, AAPCA supports U.S. EPA's proposal to "retroactively apply the Network Data Alignment equation to all of the hourly unaligned T640 and T640X $PM_{2.5}$ concentrations in the EPA's Air Quality System (AQS) for data beginning in 2017."[3] AAPCA's state and local members have communicated to U.S. EPA regarding data comparability issues between Federal Reference Methods (FRM) for monitoring PM in ambient air and the Teledyne T640/T640X PM Mass Monitors that received Federal Equivalent Method (FEM) designation in July 2016. In November 2022, AAPCA transmitted a letter to U.S. EPA's Office of Air Quality Planning and Standards (OAQPS) with considerations for improving the observed bias in FEM data.[4] As U.S. EPA notes, the T640/T640X FEMs consistently produce $PM_{2.5}$ data with an approximate 20 percent positive bias relative to collocated FRMs operated by state, local, and tribal agencies, and there were about 400 T640/T640X PM FEMs in operation in 2023.

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[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. AAPCA represents 51 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] 89 Fed. Reg. 11831 (February 15, 2024).
[3] U.S. EPA's Overview to the "Proposal to Update PM2.5 Data from T640/T640X PM Mass Monitors."
[4] AAPCA letter to Mr. Peter Tsirigotis, Director, U.S. EPA OAQPS (November 23, 2022).

In April 2023, U.S. EPA's Office of Research and Development (ORD) Reference and Equivalency Program approved a modification to Teledyne T640/T640X FEMs that included a Network Data Alignment firmware update to correct the positive bias moving forward, which has since been adopted by nearly all agencies operating the Teledyne continuous monitors for PM. Applying the Network Data Alignment to correct data back to 2017, as U.S. EPA proposes, is important to providing consistent and accurate monitoring data for regulatory, scientific, and public use. AAPCA provides the following recommendations as this proposal is finalized:

- **U.S. EPA should expedite the Agency's timeline for applying the bias correction to past data in AQS and provide flexibility, including additional time, for air agencies to certify their data.** With data being adjusted back to 2017, there will be nearly seven years of data for state and local monitoring agencies to submit, review, and approve by May 1, 2024. This is a considerable amount of work in a limited amount of time for resource-constrained agencies that may need to extensively re-code data or consult with their regional offices, as well as develop annual air monitoring network plans and new inventory reporting requirements[5] that are due mid-year. U.S. EPA should also be flexible with the ultimate deadline for certification.

- **U.S. EPA should immediately begin working with monitoring agencies to review and further correct, as needed, data influenced by smoke from fires.** U.S. EPA's proposal states that "Even higher positive biases have been reported for sites with smoke impacts from fires" and 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."[6] AAPCA appreciates U.S. EPA's recognition of the impact this could have on the already-tight timeline air agencies have to develop area attainment recommendations for the 2024 $PM_{2.5}$ NAAQS.

- **U.S. EPA should be transparent about the equation that is used to correct biased data from the Teledyne T640/T640X PM Mass Monitors.** Approval of the FEM designation for these continuous monitors led to between six and seven years of data that needs bias corrected. Releasing the Network Data Alignment equation publicly will allow the agencies that operate these monitors to better review the changes to the data they manage and use to make regulatory decisions, develop SIPs, and inform local communities.[7] Further, not providing the equation puts air agencies at a disadvantage when communicating with the public, which may have questions about local air quality in light of a "bias correction."

- **U.S. EPA should consider retroactively correcting coarse particulate matter (PM_{10}) data.** The proposal notes that U.S. EPA is not recommending an update to the PM_{10} data impacted by the Teledyne instrument bias, "due to the diminutive effect on PM_{10} data relative to its data uses."[8]

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[5] Memorandum from Richard Wayland, Director, Air Quality Assessment Division, "Implementing an Ambient Air Quality Monitoring Asset Management Framework," January 25, 2024.

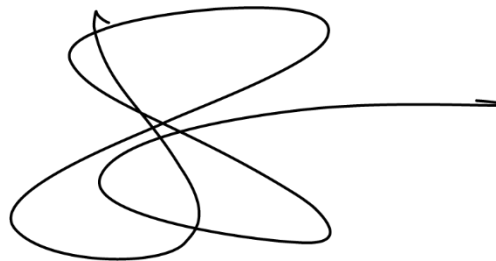[6] U.S. EPA, "Proposal to Update PM2.5 Data from T640/T640X PM Mass Monitors," February 2024.

[7] For example, providing detailed information on how ambient temperature data associated with the site will be utilized as part of the correction in AQS could benefit co-regulator technical experts as they review and certify the updated data.

[8] U.S. EPA's Overview to the "Proposal to Update PM2.5 Data from T640/T640X PM Mass Monitors."

Despite being potentially diminutive, correcting the bias associated with PM_{10} data could be important to some states and provides a more accurate dataset for regulatory, scientific, and public use.

Thank you for your consideration of AAPCA's comments on U.S. EPA's plan for retroactively correcting positive $PM_{2.5}$ data biases associated with the Teledyne T640/T640X PM Mass Monitors. If you have any questions or would like to further engage AAPCA's membership on this proposal, please contact Mr. Jason Sloan, Executive Director, at jsloan@csg.org or (859) 244-8043.

Sincerely,

Jason Sloan
Executive Director, AAPCA

cc: Mr. Richard Wayland, EPA OAQPS