



ENVIRONMENTAL PROTECTION AGENCY

[FRL-13145-02-OAR]

Ambient Air Monitoring Reference and Equivalent Methods; Designation of One New Reference Method and Three New Equivalent Methods; Correction

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: On July 15, 2026, the U.S. Environmental Protection Agency (EPA) published a notice designating one new reference method for measuring carbon monoxide (CO), one new equivalent method for measuring particulate matter (PM) 2.5 micrometers (μm) or less ($\text{PM}_{2.5}$), one new equivalent method for measuring PM 10 μm or less (PM_{10}), and one new equivalent method for measuring PM_{10-2.5} in ambient air. After publication, the EPA realized that there was an error in the notice; therefore, this action corrects and replaces the July 15, 2026, designation notice.

FOR FURTHER INFORMATION CONTACT: For further information about this notice, contact Reference and Equivalency Methods Program, Air Quality Assessment Division, Office of State Air Partnerships, U.S. Environmental Protection Agency, P.O. Box 12055, 109 T.W. Alexander Drive, Research Triangle Park, North Carolina 27711, email address:

FRMFEM@epa.gov.

SUPPLEMENTARY INFORMATION: On July 15, 2026 (91 FR 43372), the U.S. Environmental Protection Agency (EPA) published a notice designating one new reference method for measuring carbon monoxide (CO), one new equivalent method for measuring particulate matter (PM) 2.5 micrometers (μm) or less ($\text{PM}_{2.5}$), one new equivalent method for measuring PM 10 μm or less (PM_{10}), and one new equivalent method for measuring PM_{10-2.5} in ambient air. After publication, the EPA realized that there was an error in the notice; therefore, this action corrects and replaces the July 15, 2026, designation notice.

In accordance with regulations at 40 CFR part 53, the EPA evaluates various methods for monitoring the concentrations of ambient air pollutants for which the EPA has established National Ambient Air Quality Standards (NAAQS) as set forth in 40 CFR part 50. Air monitoring methods determined to meet specific requirements for adequacy are designated by the EPA as either reference or equivalent methods (as applicable), thereby permitting their use under 40 CFR part 58 by States and other air monitoring agencies for determining compliance with the NAAQS. A list of all reference or equivalent methods that have been previously designated by the EPA may be found at <https://www.epa.gov/amtic/air-monitoring-methods-criteria-pollutants>.

The EPA hereby announces the designation of one new reference method for measuring concentrations of CO ambient air. This designation is made under the provisions of 40 CFR part 53, as amended on March 6, 2024.¹

The new reference method for CO is an automated method (analyzer) utilizing the measurement principle based on gas filter correlation principles and non-dispersive infrared technology (GFC/NDIR). This newly designated reference method is identified as follows:

RFCA-0625-271, “Vasthi Instruments Model Vair-9003 CO Analyzer,” GFC/NDIR analyzer operated in a range of 0–50 parts per million (ppm), with 0.5 µm, 47 millimeter (mm) diameter Teflon® filter installed, operated at temperatures between 20 °C and 30 °C, with temperature and pressure compensation, at a nominal sampling flow rate of 800 cubic centimeters per minute (cc/min), using a 5-minute averaging time, with 100-240 volt (V) input power, 270-watt power consumption, equipped with a 7-inch liquid crystal display (LCD) touch screen display, and operated according to the Vasthi Instruments Model Vair-9003 Carbon Monoxide Gas Analyzer User’s Instruction Manual.

¹ 89 FR 16202 (Mar. 6, 2024).

An application for a reference method determination for this CO method was received by the EPA on November 21, 2024. This monitor is commercially available from the applicant, Vasthi Instruments Pvt. Ltd, Phase IV, Auto Nagar, Guntur, Andhra Pradesh, India.

The EPA hereby announces the designation of three new equivalent methods for measuring concentrations of PM_{2.5}, PM₁₀, and PM_{10-2.5} in ambient air. These designations are made under the provisions of 40 CFR part 53, as amended on March 6, 2024.²

The new equivalent method for PM_{2.5} is an automated method (monitor) utilizing the measurement principle based on optical mass spectroscopy. This newly designated equivalent method is identified as follows:

EQPM-1125-273, “Met One Instruments Powered by Acoem OPX 1025 Optical PM Mass Monitor,” continuous ambient particulate monitor operated at a volumetric sample flow rate of 16.67 liters/min equipped with a standard U.S. EPA PM₁₀ size-selective inlet (meeting 40 CFR part 50 Appendix L specifications); for example, Met One PN: BX-802, or with a TSP inlet designed for 16.67 liters/min, Inlet Heater/Sample Conditioner (Met One PN: 84288), and Met One PN: BX-597A ambient temperature/barometric pressure/relative humidity combination sensor or compatible Weather Sensor as specified in the OPX 1025 Operation Manual; and configured for operation with firmware version 1.0.0 or later, in accordance with the OPX 1025 Operation Manual. This designation applies to PM_{2.5} measurements only.

An application for an equivalent method determination for this PM_{2.5} method was received by the EPA on July 11, 2025. This monitor is commercially available from the applicant, Met One Instruments, 200 NE Greenfield Drive, Grants Pass, OR 97526.

² *Id.*

The new equivalent method for PM₁₀ is an automated method (monitor) utilizing the measurement principle based on optical mass spectroscopy. This newly designated equivalent method is identified as follows:

EQPM-1225-274, “Met One Instruments Powered by Acoem OPX 1025 Optical PM Mass Monitor,” continuous ambient particulate monitor operated at a volumetric flow rate of 16.67 liters/min equipped with a standard US EPA PM₁₀ size-selective inlet (meeting 40 CFR 50 Appendix L specifications); for example, Met One PN: BX-802, Inlet Heater/Sample Conditioner (Met One PN: 84288), and Met One PN: BX-597A ambient temperature/barometric pressure/relative humidity combination sensor or compatible Weather Sensor as specified in the OPX 1025 Operation Manual; and configured for operation with firmware version 1.0.0 or later, in accordance with the OPX 1025 Operation Manual. This designation applies to PM₁₀ measurements only.

An application for an equivalent method determination for this PM₁₀ method was received by the EPA on July 21, 2025. This monitor is commercially available from the applicant, Met One Instruments, 200 NE Greenfield Drive, Grants Pass, OR 97526.

The new equivalent method for PM_{10-2.5} is an automated method (monitor) utilizing the measurement principle based on optical mass spectroscopy. This newly designated equivalent method is identified as follows:

EQPM-1225-275, “Met One Instruments Powered by Acoem OPX 1025 Optical PM Mass Monitor,” continuous ambient particulate monitor operated at a volumetric flow rate of 16.67 liters/min equipped with a standard US EPA PM₁₀ size-selective inlet (meeting 40 CFR 50 Appendix L specifications); for example, Met One PN: BX-802, Inlet Heater/Sample Conditioner (Met One PN: 84288), and Met One PN: BX-597A ambient temperature/barometric pressure/relative humidity combination sensor or compatible Weather

Sensor as specified in the OPX 1025 Operation Manual; and configured for operation with firmware version 1.0.0 or later, in accordance with the OPX 1025 Operation Manual.

This designation applies to PM_{10-2.5} Measurements Only.

An application for an equivalent method determination for this PM_{10-2.5} method was received by the EPA on July 22, 2025. This monitor is commercially available from the applicant, Met One Instruments, 200 NE Greenfield Drive, Grants Pass, OR 97526.

As designated reference and equivalent methods, these methods are acceptable for use by States and other air monitoring agencies under the requirements of 40 CFR part 58, Ambient Air Quality Surveillance. For such purposes, these methods must be used in strict accordance with the operation or instruction manual associated with these methods and subject to any specifications and limitations (*e.g.*, configuration or operational settings) specified in the designated method descriptions. Consistent or repeated noncompliance with any of these conditions should be reported to the Reference and Equivalency Methods Program.

Use of these methods should also be in general accordance with the guidance and recommendations of applicable sections of the “Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I,” EPA/600/R-94/038a and “Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Quality Monitoring Program,” EPA-454/B-13-003.³ Provisions concerning modification of such methods by users are specified under section 2.8 (*Modifications of Methods by Users*) of Appendix C to 40 CFR part 58.

Questions concerning the commercial availability or technical aspects of these methods should be directed to the applicants.

³ Both of these handbooks are available at <https://www.epa.gov/amtic/ambient-air-monitoring-quality-assurance-guidance-documents>.

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