



[FRL-12714-01-ORD]

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

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of the designation of three new equivalent methods and one new reference method for monitoring ambient air quality.

**SUMMARY:** Notice is hereby given that the Environmental Protection Agency (EPA) has designated one new equivalent method for measuring SO<sub>2</sub>, one new reference method for measuring NO<sub>2</sub>, one new equivalent method for measuring concentrations of PM<sub>2.5</sub>, and one new equivalent method for measuring PM<sub>10-2.5</sub> in ambient air.

**FOR FURTHER INFORMATION CONTACT:** Cortina Johnson, Air Quality Assessment Division, Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, North Carolina 27711. Phone: 919-541-1143. E-mail: [johnson.cortina@epa.gov](mailto:johnson.cortina@epa.gov).

**SUPPLEMENTARY INFORMATION:** In accordance with regulations at 40 CFR part 53, the EPA evaluates various methods for monitoring the concentrations of those ambient air pollutants for which EPA has established National Ambient Air Quality Standards (NAAQS) as set forth in 40 CFR part 50. Monitoring methods that are

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 agencies for determining compliance with the NAAQS. A list of all reference or equivalent methods that have been previously designated by EPA may be found at <http://www.epa.gov/ttn/amtic/criteria.html>.

The EPA hereby announces the designation of one new equivalent method for measuring concentrations of SO<sub>2</sub> in ambient air. This designation is made under the provisions of 40 CFR part 53, as amended on March 6, 2024 (89 FR 16202-16406).

This new equivalent method for SO<sub>2</sub> is an automated method (monitor) utilizing the measurement principle based on UV fluorescence. This newly designated equivalent method is identified as follows:

EQSA-0225-267, "Vasthi Instruments Model Vair-9001 SO<sub>2</sub> Analyzer," UV fluorescence analyzer operated in a range of 0-0.5 ppm, with 0.5 µm, 47 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 cc/min, using a 5 minute averaging time, with either 105VAC-125VAC or 200VAC-240VAC input power options, 280-watt power consumption, equipped with 7 inch LCD touch screen display, and

operated according to the Vasthi Instruments Model Vair-9001 Sulphur Dioxide Gas Analyzer User's Instruction Manual.

This application for an equivalent method determination for this SO<sub>2</sub> method was received by the Office of Research and Development on September 30, 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 one new reference method for measuring concentrations of NO<sub>2</sub> in ambient air. This designation is made under the provisions of 40 CFR part 53, as amended on March 6, 2024 (89 FR 16202-16406).

This new reference method for NO<sub>2</sub> is an automated method (monitor) utilizing the measurement principle based on chemiluminescence. This newly designated reference method is identified as follows:

RFNA-0325-268, "Vasthi Instruments Model Vair-9002 NO<sub>2</sub> Analyzer," Chemiluminescent analyzer operated in a range of 0-0.5 ppm, with 0.5 µm, 47 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 700 cc/min, using a 5 minute averaging time, with 220VAC-230VAC input power, 360-watt power consumption, equipped with 7 inch LCD touch screen display, and operated according to the Vasthi Instruments Model Vair-9002 Nitrogen Oxide Gas Analyzer User's Instruction Manual.

This application for a reference method determination for

this NO<sub>2</sub> method was received by the Office of Research and Development on October 4th, 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 one new equivalent method for measuring concentrations of PM<sub>2.5</sub> in ambient air. This designation is made under the provisions of 40 CFR part 53, as amended on March 6, 2024(89 FR 16202-16406).

This new equivalent method for PM<sub>2.5</sub> is an automated method (monitor) utilizing the measurement principle based on beta attenuation analysis. This newly designated equivalent method is identified as follows:

EQPM-0325-269, "Focused Photonics Inc. BPM-200 PM<sub>2.5</sub> Monitor" operated in the following concentration ranges: 0-1 mg/m<sup>3</sup>, 0-2 mg/m<sup>3</sup>, 0-5 mg/m<sup>3</sup>, or 0-10 mg/m<sup>3</sup>, analyzing ambient conditions temperatures between -30°C to 50°C while the monitor can operate in a conditioned space between 0°C to 50°C. The unit is operated for 24-hour average measurements, with the FPI P/N 1010500687 EPA PM<sub>10</sub> inlet, with a BGI Very Sharp Cut Cyclone (VSCC™) particle size separator or Tisch TE-PM<sub>2.5</sub>C cyclone, glass fiber filter tape with axial inner diameter of 41mm (1360700223), the 220VAC 50Hz power supply, the FPI P/N 1010500688 Atmospheric Temperature Unit, the 1010500920 Air heating unit for maintaining moisture at about 35% and no ΔT control, the FPI P/N 1360600229 filter, the FPI P/N 1010500303 internal calibration device, 1041000215 Main Board, 1010503229 Interface board

display. Instrument must be operated in accordance with the appropriate instrument manual and with software (firmware) version AQMSPlus.P005.V01A.US001. This designation applies to PM<sub>2.5</sub> measurements only.

This application for an equivalent method determination for this PM<sub>2.5</sub> method was received by the Office of Research and Development on October 3, 2023. This monitor is commercially available from the applicant, Focused Photonics Inc. (FPI) 760 Bin'an Rd, Binjiang District Hangzhou, Zhejiang, China.

The EPA hereby announces the designation of one new equivalent method for measuring concentrations of PM<sub>10-2.5</sub> in ambient air. This designation is made under the provisions of 40 CFR part 53, as amended on March 6, 2024 (89 FR 16202-16406).

This new equivalent method for PM<sub>10-2.5</sub> is an automated method (monitor) utilizing the measurement principle based on beta attenuation analysis. This newly designated equivalent method is identified as follows:

EQPM-0325-270, "Focused Photonics Inc. BPM-200 Monitor" for the determination of coarse particulate matter as PM<sub>10-2.5</sub>, consisting of a pair of Focused Photonics Inc. BPM-200 monitors with one being a BPM-200 PM<sub>2.5</sub> monitor under designation EQPM-0325-269 and the other being a BPM-200 PM<sub>10</sub> monitor under designation EQPM-0121-258 and operated in accordance with the associated BPM-200 instruction manuals. This designation applies to PM<sub>10-2.5</sub> measurements only.

This application for an equivalent method determination for

this PM<sub>2.5</sub> method was received by the Office of Research and Development on March 18, 2025. This monitor is commercially available from the applicant, Focused Photonics Inc. (FPI) 760 Bin'an Rd, Binjiang District Hangzhou, Zhejiang, China.

Representative test monitors were tested in accordance with the applicable test procedures specified in 40 CFR part 53, as amended on March 6, 2024. After reviewing the results of those tests and other information submitted by the applicant, EPA has determined, in accordance with 40 CFR part 53, that these methods should be designated as equivalent and reference methods.

As designated equivalent and reference 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 (see the identification of the methods above).

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, (both

available at <http://www.epa.gov/ttn/amtic/qalist.html>).

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.

Consistent or repeated noncompliance with any of these conditions should be reported to: Director, Air Methods and Characterization Division (MD-D205-03), Center for Environmental Measurement and Modeling, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

Designation of these methods are intended to assist the States in establishing and operating their air quality surveillance systems under 40 CFR part 58. Questions concerning the commercial availability or technical aspects of these methods should be directed to the applicant.

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Gayle Hagler,  
Acting Director,  
Center for Environmental Measurement and Modeling.

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