ENVIRONMENTAL PROTECTION AGENCY **6560-50-P**

[FRL 9918-79-ORD]

Office of Research and Development;

Ambient Air Monitoring Reference and Equivalent Methods: Designation of Two New Reference Methods and Two New Equivalent Methods.

AGENCY: Environmental Protection Agency.

ACTION: Notice of designation of two reference methods and two equivalent methods for monitoring ambient air quality.

SUMMARY: Notice is hereby given that the Environmental Protection Agency (EPA) has designated, in accordance with 40 CFR Part 53, two new reference methods and two new equivalent methods. The reference methods include one for measuring $PM_{2.5}$, and one for measuring $PM_{10-2.5}$ in the ambient air. The two equivalent methods are one for measuring carbon monoxide(CO)and one for measuring ozone (O_3) in the ambient air.

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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 (NAAQSs), 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 methods or equivalent methods (as applicable), thereby permitting their use under 40 CFR part 58 by States and other agencies for determining compliance with the NAAQSs.

The EPA hereby announces the designation of one new reference method for measuring $PM_{2.5}$, one new reference method for measuring $PM_{10-2.5,}$ one new equivalent method for measuring concentrations of carbon monoxide (CO), and one equivalent method for measuring ozone (O_3) in the ambient air. These designations are made under the provisions of 40 CFR part 53, as amended on August 31, 2011(76 FR 54326- 54341).

The new reference method for $PM_{2.5}$ is a manual monitoring method based on a particular $PM_{2.5}$ sampler and is identified as follows:

RFPS-1014-219, "Tisch Environmental Model TE-Wilbur2.5 $PM_{2.5}$ Low-Volume Air Particulate Sampler," configured as a $PM_{2.5}$ reference method, with firmware version 1.70 or later and a TE-PM10-D PM_{10} size-selective inlet as specified in 40 CFR 50 Appendix L Figs. L-2 thru L-19, with either a BGI VSCC™ Very Sharp Cut Cyclone particle size separator or WINS impactor, and operated for 24 sample periods at a flow rate of 16.67 L/min, using 47 mm PTFE membrane filter media, and in accordance with the Tisch Environmental Model TE-Wilbur2.5 $PM_{2.5}$ Low-Volume Air Particulate Sampler instruction manual and with the requirements and sample collection filters as specified in 40 CFR part 50, Appendix L.

The new $PM_{10-2.5}$ reference method utilizes a pair of filter samplers than have been designated individually as reference methods, one for $PM_{2.5}$ and the other one for PM_{10}, and have been shown to meet the requirements specified in Appendix O of 40 CFR part 50. The $PM_{2.5}$ and PM_{10} samplers are designated as reference

methods RFPS-1014-219 and RFPS-0714-216, respectively. The newly designated $PM_{10-2.5}$ sampler is identified as follows:

RFPS-1014-220, "Tisch Environmental Model TE-Wilbur Low-Volume Air Particulate Sampler Pair" for the determination of coarse particulate matter as $PM_{10-2.5}$, consisting of a pair of Tisch Environmental Model TE-Wilbur samplers, with one being the TE-Wilbur2.5 $PM_{2.5}$ sampler (RFPS-1014-219) and the other being a TE-Wilbur10 PM_{10} sampler (RFPS-0714-216), and operated in accordance with the associated TE-Wilbur instruction manual. This designation applies to $PM_{10-2.5}$ measurements only.

The application for reference method determination for the $PM_{2.5}$ method was received by the Office of Research and Development on September 29, 2014 and the $PM_{10-2.5}$ method application was received on October 8, 2014. These monitors are commercially available from the applicant, Tisch Environmental, Inc., 145 S. Miami Avenue, Village of Cleves, OH 45002.

The newly designated equivalent method for CO is a mercury replacement-UV photometric method and is identified as follows:

EQCA-0814-217, "Peak Laboratories, Model 910-170 Carbon Monoxide Analyzer", (Mercury replacement- UV photometric method)

operated on any full scale range between 0-50 ppm, at any operating temperature from 20°C to 30°C, using a back-flushing GC scrubber, 99.9999% nitrogen carrier gas at a gas pressure of 60-80 psig, with a column temperature of 105°C, and a detector temperature of 265°C; inlet flow of 20-100 mL/min; in accordance with the associated instrument manual, and with or without any of the following options: rack mount kit, internal sample pump, 4-20 mA output module, particle filter, and data collection software.

The application for equivalent method determination for the CO method was received by the Office of Research and Development on January 3, 2011. This monitor is commercially available from the applicant, Peak Laboratories, LLC, 2330 Old Middlefield Way Suite 10, Mountain View, CA 94043.

One new O_3 equivalent method is an automated monitoring method (analyzer) utilizing a measurement principle based on ultraviolet absorption photometry. The newly designated equivalent method is identified as follows:

EQOA-0914-218, "2B Technologies Model 106-L or OEM-106-L Ozone Monitor" operated in a range of 0 - 0.5 ppm in an

environment of 20-30 °C, with temperature and pressure compensation, internal dewLine for humidity control, using a 1 minute average, with a 12V DC source supplied by a 100-240V AC power adapter, operated according to the Model 106 Ozone Monitor Operation Manual and with or without the following: cigarette lighter adapter or a 12V DC battery for portable operation, external PTFE or PVDF inlet filter and holder, USB data port with computer cable.

The application for equivalent method determination for the O_3 method was received by the Office of Research and Development on June 24, 2014. This monitor is commercially available from the applicant, 2B Technology, Inc., 2100 Central Ave., Suite 105, Boulder, CO 80303.

Test monitors representative of these methods have been tested in accordance with the applicable test procedures specified in 40 CFR part 53, as amended on August 31, 2011. After reviewing the results of those tests and other information submitted in the application, EPA has determined, in accordance with part 53, that these methods should be designated as equivalent methods.

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, the methods must be used in strict accordance with the operation or instruction manual associated with the method and subject to any specifications and limitations (e.g., configuration or operational settings) specified in the applicable designated method description (see the identification of the method above).

Use of the methods also should 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-08-003, December, 2008. 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 should be reported to:

Director, Human Exposure and Atmospheric Sciences Division (MD-E205-01), National Exposure Research Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

Designation of these reference and equivalent methods is 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 the method should be directed to the applicant.

Dated: October 24, 2014.

Jennifer Orme-Zavaleta,
Director,
National Exposure Research Laboratory.

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