

ENVIRONMENTAL PROTECTION AGENCY

[FRL-9285-2]

Office of Research and Development; Ambient Air Monitoring
Reference and Equivalent Methods: Designation of Four New Equivalent
Methods

AGENCY: Environmental Protection Agency.

ACTION: Notice of the designation of four new 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, four
new equivalent methods: One each for measuring concentrations of
PM2.5 and lead (Pb) and two for measuring concentrations of
PM10 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 (NAAQs) as set
forth in 40 CFR Part 50.

The new PM2.5 equivalent method is an automated monitoring method
(analyzer) utilizing a measurement principle based on active sampling
of ambient aerosols and contemporaneous analysis by means of a light-
scattering technique for determination of particle size and mass
concentration. The newly designated equivalent method is identified as
follows:

EQPM-0311-195, 'Grimm Technologies, Inc. Model EDM 180 PM2.5
Monitor,' light scattering continuous ambient particulate monitor
operated for 24 hours at a volumetric flow rate of 1.2 L/min,
configured with a Nafion[reg]-type air sample dryer, complete for
operation with firmware version 7.80 or later, in accordance with the
Grimm Technologies, Inc. Model EDM 180 Operation and Instruction
Manual. The optional graphic presentation can be made with the
software model 1.177 version 3.30 or later.

The application for an equivalent method determination for this
candidate method was received by the EPA on April 6, 2010. The monitor
is commercially available from the applicant, GRIMM Technologies,
Inc., 5833 Stewart Parkway, Suite 203, Douglasville, GA 30153. It
should be noted that this Grimm Model EDM 180 PM2.5 Monitor is not
only a semi-continuous PM2.5 analyzer but it is also the first
equivalent method designated by EPA that is based on an optical
measurement technique and, further, one that does not involve inertial
separation of particles in the PM2.5 size range or collection of the
PM2.5 on a particle filter.

Because this new measurement approach is being approved for NAAQS
compliance measurements for the first time, users are encouraged to
consider the special nature of this method when introducing it into a
SLAMS PM2.5 monitoring network. The EPA Regional Offices can offer
guidance in this regard.