

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.

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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.