

## § 53.1

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53.61 Test conditions for PM<sub>2.5</sub> reference method equivalency.

53.62 Test procedure: Full wind tunnel test.

53.63 Test procedure: Wind tunnel inlet aspiration test.

53.64 Test procedure: Static fractionator test.

53.65 Test procedure: Loading test.

53.66 Test procedure: Volatility test.

TABLE F-1 TO SUBPART F—PERFORMANCE SPECIFICATIONS FOR PM<sub>2.5</sub> CLASS II EQUIVALENT SAMPLERS

TABLE F-2 TO SUBPART F—PARTICLE SIZES AND WIND SPEEDS FOR FULL WIND TUNNEL TEST, WIND TUNNEL INLET ASPIRATION TEST, AND STATIC CHAMBER TEST

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TABLE F-4 TO SUBPART F—ESTIMATED MASS CONCENTRATION MEASUREMENT OF PM<sub>2.5</sub> FOR IDEALIZED COARSE AEROSOL SIZE DISTRIBUTION

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FIGURE E-1 TO SUBPART F—DESIGNATION TESTING CHECKLIST

APPENDIX A TO SUBPART F—REFERENCES

AUTHORITY: Sec. 301(a) of the Clean Air Act (42 U.S.C. sec. 1857g(a)), as amended by sec. 15(c)(2) of Pub. L. 91-604, 84 Stat. 1713, unless otherwise noted.

SOURCE: 40 FR 7049, Feb. 18, 1975, unless otherwise noted.

### Subpart A—General Provisions

SOURCE: 62 FR 38784, July 18, 1997, unless otherwise noted.

#### § 53.1 Definitions.

Terms used but not defined in this part shall have the meaning given them by the Act.

*Act* means the Clean Air Act (42 U.S.C. 1857-1857l), as amended.

*Administrator* means the Administrator of the Environmental Protection Agency or the Administrator's authorized representative.

*Agency* means the Environmental Protection Agency.

*Applicant* means a person or entity who submits an application for a reference or equivalent method determination under § 53.4, or a person or en-

tity who assumes the rights and obligations of an applicant under § 53.7. Applicant may include a manufacturer, distributor, supplier, or vendor.

*Automated method or analyzer* means a method for measuring concentrations of an ambient air pollutant in which sample collection (if necessary), analysis, and measurement are performed automatically by an instrument.

*Candidate method* means a method for measuring the concentration of an air pollutant in the ambient air for which an application for a reference method determination or an equivalent method determination is submitted in accordance with § 53.4, or a method tested at the initiative of the Administrator in accordance with § 53.7.

*Class I equivalent method* means an equivalent method for PM<sub>2.5</sub> which is based on a sampler that is very similar to the sampler specified for reference methods in appendix L of this part, with only minor deviations or modifications, as determined by EPA.

*Class II equivalent method* means an equivalent method for PM<sub>2.5</sub> that utilizes a PM<sub>2.5</sub> sampler in which an integrated PM<sub>2.5</sub> sample is obtained from the atmosphere by filtration and is subjected to a subsequent filter conditioning process followed by a gravimetric mass determination, but which is not a Class I equivalent method because of substantial deviations from the design specifications of the sampler specified for reference methods in appendix L of part 50 of this chapter, as determined by EPA.

*Class III equivalent method* means an equivalent method for PM<sub>2.5</sub> that has been determined by EPA not to be a Class I or Class II equivalent method. This fourth type of PM<sub>2.5</sub> method includes alternative equivalent method samplers and continuous analyzers, based on designs and measurement principles different from those specified for reference methods (e.g., a means for estimating aerosol mass concentration other than by conventional integrated filtration followed by equilibration and gravimetric analysis. These samplers (or monitors) are those deemed to be substantially different from reference method samplers and

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are likely to use components and methods other than those specified for reference method samplers.

*Collocated* describes two or more air samplers, analyzers, or other instruments which sample the ambient air that are operated simultaneously while located side by side, separated by a distance that is large enough to preclude the air sampled by any of the devices from being affected by any of the other devices, but small enough so that all devices obtain identical or uniform ambient air samples that are equally representative of the general area in which the group of devices is located.

*Equivalent method* means a method for measuring the concentration of an air pollutant in the ambient air that has been designated as an equivalent method in accordance with this part; it does not include a method for which an equivalent method designation has been canceled in accordance with § 53.11 or § 53.16.

*ISO 9001-registered facility* means a manufacturing facility that is either:

(1) An International Organization for Standardization (ISO) 9001-registered manufacturing facility, registered to the ISO 9001 standard (by the Registrar Accreditation Board (RAB) of the American Society for Quality Control (ASQC) in the United States), with registration maintained continuously.

(2) A facility that can be demonstrated, on the basis of information submitted to the EPA, to be operated according to an EPA-approved and periodically audited quality system which meets, to the extent appropriate, the same general requirements as an ISO 9001-registered facility for the design and manufacture of designated reference and equivalent method samplers and monitors.

*ISO-certified auditor* means an auditor who is either certified by the Registrar Accreditation Board (in the United States) as being qualified to audit quality systems using the requirements of recognized standards such as ISO 9001, or who, based on information submitted to the EPA, meets the same general requirements as provided for ISO-certified auditors.

*Manual method* means a method for measuring concentrations of an ambient air pollutant in which sample col-

lection, analysis, or measurement, or some combination thereof, is performed manually. A method for PM<sub>10</sub> or PM<sub>2.5</sub> which utilizes a sampler that requires manual preparation, loading, and weighing of filter samples is considered a manual method even though the sampler may be capable of automatically collecting a series of sequential samples.

*PM<sub>2.5</sub> sampler* means a device, associated with a manual method for measuring PM<sub>2.5</sub>, designed to collect PM<sub>2.5</sub> from an ambient air sample, but lacking the ability to automatically analyze or measure the collected sample to determine the mass concentrations of PM<sub>2.5</sub> in the sampled air.

*PM<sub>10</sub> sampler* means a device, associated with a manual method for measuring PM<sub>10</sub>, designed to collect PM<sub>10</sub> from an ambient air sample, but lacking the ability to automatically analyze or measure the collected sample to determine the mass concentrations of PM<sub>10</sub> in the sampled air.

*Reference method* means a method of sampling and analyzing the ambient air for an air pollutant that is specified as a reference method in an appendix to part 50 of this chapter, or a method that has been designated as a reference method in accordance with this part; it does not include a method for which a reference method designation has been canceled in accordance with § 53.11 or § 53.16.

*Sequential samples for PM samplers* means two or more PM samples for sequential (but not necessarily contiguous) time periods that are collected automatically by the same sampler without the need for intervening operator service.

*Test analyzer* means an analyzer subjected to testing as part of a candidate method in accordance with subparts B, C, D, E, or F of this part, as applicable. *Test sampler* means a PM<sub>10</sub> sampler or a PM<sub>2.5</sub> sampler subjected to testing as part of a candidate method in accordance with subparts C, D, E, or F of this part.

*Ultimate purchaser* means the first person or entity who purchases a reference method or an equivalent method for purposes other than resale.