

## FACT SHEET

### Method for the Determination of Lead in Total Suspended Particulate Matter

#### ACTION

- On January 25, 2013, the U.S. Environmental Protection Agency (EPA) issued a proposed rule to establish a new Federal Reference Method (FRM) for state and local air monitoring agencies to use as one of the approved methods for measurement of lead in total suspended particulate matter (TSP). The FRM serves as the definitive method for routinely measuring Pb for comparison to the NAAQS and also serves as the standard of comparison for determining equivalence of candidate Federal Equivalent Methods (FEMs). The new FRM will support lead (Pb) NAAQS data collection. The existing FRM will be designated as a Federal Equivalent Method (FEM). Designation of the old FRM as a new FEM allows continued use of the legacy FRM going forward.
- EPA is proposing two extraction methods (heated ultrasonic and hot block) and one analytical method (Inductively Coupled Plasma-Mass Spectrometry – ICP-MS) as the new FRM in 40 CFR part 50 Appendix G.
- EPA is proposing to make the existing FRM for Pb in 40 CFR Part 50, Appendix G, based on Flame Atomic Absorption Spectroscopy a new FEM, and retain currently designated FEMs.
- The new FRM is based on two methods that were tested and approved as FEMs (EQL-0510-191 and EQL-0710-192) to ensure comparability with the existing FRM. This rule permits continued use of the old FRM (as an FEM) and the existing FEMs to avoid any disruption to state and local air monitoring agencies using these methods for lead monitoring.
- The method also allows for the use of glass fiber, Teflon®, or quartz filter media for the collection of Pb in TSP; whereas, only glass fiber filters were allowed for use in the past.
- These proposed revisions do not create any additional monitoring requirements or require changes in approved monitoring methods.

#### BACKGROUND

- The Clean Air Act requires EPA to set national ambient air quality standards for pollutants considered harmful to public health and the environment. National standards exist for six pollutants: nitrogen dioxide, ozone, particulate matter, carbon monoxide, sulfur dioxide, and lead.
- On November 12, 2008, EPA substantially strengthened the National Ambient Air Quality Standard (NAAQS) for lead (73 FR 66934). EPA revised the level of the primary (health-based) standard from 1.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of lead (Pb) to 0.15  $\mu\text{g}/\text{m}^3$  of Pb measured in TSP and revised the secondary (welfare-based) standard to be identical in all respects to the primary standard.

- In 2008, EPA also revised the performance-based requirements for Pb FEMs in Part 53. The performance requirements were revised to be consistent with the revised Pb NAAQS level. Specifically, the Pb concentration range at which the FEM comparability testing is conducted was lowered to a range of 0.045 to 0.375  $\mu\text{g}/\text{m}^3$  and the requirement for a minimum method detection limit was established at 0.0075  $\mu\text{g}/\text{m}^3$ .
- Although the existing FRM in Appendix G is adequate, this proposed FRM offers advantages over the current FRM by addressing the improved measurement sensitivity (detection limits) needed in response to the tightened Pb NAAQS. This rule recognizes advances in measurement technology that have occurred since promulgation of the original FRM in 1978, and takes advantage of improved extraction methods that are now available with improved precision, sample throughput, and extraction efficiency.

### **HOW TO COMMENT**

- The EPA will accept comment on this proposal for 30 days following publication in the Federal Register.
- Comments should be identified by Docket ID No. EPA-HQ-OAR-2012-0210 and submitted by one of the following methods:
  - Federal eRulemaking Portal (<http://www.regulations.gov>),
  - e-mail ([a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov)),
  - Mail (EPA Docket Center, Environmental Protection Agency, Mail code 2822T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460), or
  - Hand delivery (EPA Docket Center, Environmental Protection Agency, Room 3334, 1301 Constitution Avenue, NW, Washington, DC).

### **FOR MORE INFORMATION**

- Interested parties can download the rule from EPA's web site on the Internet under Recent Actions at the following address: <http://www.epa.gov/ttn/oarpg>.
- Other places to read the proposed rule and background information (use Docket ID No. EPA-HQ-OAR-2012-0210):
  - **EPA's electronic public docket and comment system** at <http://www.regulations.gov>.
  - **The EPA Docket Center's Public Reading Room** (for hard copies).
    - The Public Reading Room is located at EPA Headquarters, Room Number 3334 in EPA West Building, 1301 Constitution Avenue, NW, Washington,
    - DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding federal holidays.

- You will have to show photo identification, pass through a metal detector, and sign the EPA visitor log. Any materials you bring with you will be processed through an X-ray machine as well. You will be provided a badge that must be visible at all times.
- For further information about the rulemaking, contact Joann Rice at EPA's Office of Air Quality Planning and Standards at (919) 541-3372.