EPA Reference Method Updates Affecting Mercury and Air Toxic Standard (MATS) Compliance Test Programs

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EPA Revisions to Test Methods & Performance Specifications

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Part III

Environmental Protection Agency

40 CFR Parts 51, 60, 61, et al.
Revisions to Test Methods, Performance Specifications, and Testing Regulations for Air Emission Sources; Final Rule
EPA Revisions to Test Methods & Performance Specifications

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates technical and editorial corrections and revisions to regulations related to source testing of emissions. We have made corrections and updates to testing provisions, and added newly approved alternatives to existing testing regulations. These revisions will improve the quality of data and provide flexibility in the use of approved alternative procedures. The revisions do not impose any new substantive requirements on source owners or operators.

DATES: The final rule is effective on October 31, 2016. The incorporation by reference materials listed in this rule are approved by the Director of the Federal Register as of October 31, 2016.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2014-0292. All documents in the docket are listed on the http://www.regulations.gov Web site. Although listed in the index, some information is not publicly available, e.g., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available at the U.S. Environmental Protection Agency, Region 10, 1111 Folsom Street, Room B101, San Francisco, CA 94103. You may also request a copy from the Docket Clerk, Region 10, at the above address, or via email at Docket.Clerk.10@epa.gov. Requests should be made at least 10 days prior to the effective date.

FRN 2060–AS34

Revisions to Test Methods, Performance Specifications, and Testing Regulations for Air Emission Sources

G. Method 202 of Appendix M of Part 51
H. Method 2 of Appendix A–1 of Part 60
I. Method 26G of Appendix A–2 of Part 60
J. Method 3G of Appendix A–2 of Part 60
K. Method 4 of Appendix A–3 of Part 60
L. Method 5 of Appendix A–3 of Part 60
M. Method 5H of Appendix A–3 of Part 60
N. Method 51 of Appendix A–3 of Part 60
O. Method 6C of Appendix A–4 of Part 60
P. Method 7E of Appendix A–4 of Part 60
Q. Method 10 of Appendix A–4 of Part 60
R. Methods 10A and 10B of Appendix A–4 of Part 60
S. Method 15 of Appendix A–5 of Part 60
T. Method 16C of Appendix A–6 of Part 60
U. Method 18 of Appendix A–6 of Part 60
V. Method 25C of Appendix A–7 of Part 60
W. Method 26 of Appendix A–8 of Part 60
X. Method 24A of Appendix A–8 of Part 60
Y. Method 29 of Appendix A–8 of Part 60
Z. Method 30A of Appendix A–8 of Part 60
AA. Method 30B of Appendix A–8 of Part 60
BB. Appendix B to Part 60—Performance Specifications
CC. Performance Specification 1 of Appendix B of Part 60
DD. Performance Specification 2 of Appendix B of Part 60
EE. Performance Specification 3 of Appendix B of Part 60
FF. Performance Specification 4A of Appendix B of Part 60
GG. Performance Specification 11 of Appendix B of Part 60
HH. Performance Specification 15 of Appendix B of Part 60
II. Performance Specification 16 of Appendix B of Part 60
JJ. Procedure 2 of Appendix F of Part 60
KK. General Provisions (Subpart A) of Part 51

I. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR part 51
J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
K. Congressional Review Act (CRA)

I. General Information

A. Does this action apply to me?

The revisions promulgated in this final rule apply to a large number of industries that are already subject to the current provisions of 40 Code of Federal Regulations (CFR) parts 51, 60, 61, and 63. For example, Performance Specification 4A applies to municipal waste combustors and hazardous waste incinerators. We did not list all of the specific affected industries or their North American Industry Classification System (NAICS) codes herein since there are many affected sources. If you have any questions regarding the applicability of this action to a particular entity, consult either the air permitting authority for the entity or your EPA Regional representative as listed in 40 CFR 63.13.

B. What action is the Agency taking?

We are promulgating technical and editorial corrections and revisions to regulations related to source testing of emissions. More specifically, we are correcting typographical and technical errors, updating obsolete testing procedures, adding approved testing alternatives, and clarifying testing requirements.

C. Judicial Review
This regulations requires the owner of a EGUs that fire coal or oil demonstrate compliance with MATS limits of three classes of Air Toxics.

- Mercury
- Non Mercury Metals
- Acid Gasses

For each of these classes of Air Toxics, the EGU owner develops a MATS compliance strategy based on the options allowed by the regulation.
Mercury (Hg)

- Must use a Hg CEMS
  - Hg monitor (annual certification by PS-12A)
  - Hg sorbent trap system (annual certification by PS-12B)

EGU MACT (40 CFR 63 Subpart UUUUU) or “Mercury and Air Toxics Standard” (MATS)
Non-Mercury Metals

- Particulate Matter (PM) as a surrogate
  - Quarterly stack test (EPA M-5 modified for MATS)
  - PM CEMS
    - PM monitor certified by PS-11
    - PM monitor certified as a CPMS (Continuous Parameter Monitoring System)
- Total Metals
  - Quarterly stack test (EPA M-29 reporting the total of all metals)
- Individual Metals
  - Quarterly stack test (EPA M-29 reporting 10 individual metals)
Acid Gasses

- If EGU has FGD system, can use SO2 as a surrogate and use an SO2 CEMS (certified annually by PS-2).
- If no FGD, HCl monitoring must be conducted
  - HCl CEMS (certified annually by PS-15)
  - Quarterly HCl stack test (EPA M-26A)
# Summary of Revisions to Test Methods & Performance Specifications

<table>
<thead>
<tr>
<th>Revised Methods</th>
<th>Nature of Revisions</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M-1</strong>: Traverse Points</td>
<td>Correct misspelling, re-insert sentence, delete duplicate figure</td>
<td>x</td>
</tr>
<tr>
<td><strong>M-2</strong>: Velocity: S-type Pitot</td>
<td>QA/QC enhancements of the pitot calibration, reduced allowable blockage to improve calibration accuracy.</td>
<td></td>
</tr>
<tr>
<td><strong>M-2G</strong>: Flow Rate (2-D Pitot)</td>
<td>Same as M-2 revisions, plus language regarding recording rotational speed has been added.</td>
<td>x</td>
</tr>
<tr>
<td><strong>M-3C</strong>: CO2, CH4, N2, O2 by TCD</td>
<td>Requirements for analyzer linearity (land fill gas)</td>
<td>x</td>
</tr>
<tr>
<td><strong>M-4</strong>: Moisture Content</td>
<td>Daily calibration of balance with Class 6 or better weight (≥500g). Alternate method for calculating approximate moisture content (Stoichiometric calculation) allowed. Must collect and analyze fuel sample to develop moisture F factor.</td>
<td>x</td>
</tr>
<tr>
<td><strong>M-5</strong>: Particulate Matter - Stationary Sources</td>
<td>Language removal regarding greased glass joints, addition of language similar to M-4 balance calibration, addition of a daily audit of the gravimetric balance used for PM weightings (Class 2 or better, 50%-150% of filter weight or 1-5 gm.)</td>
<td>x</td>
</tr>
<tr>
<td><strong>M-5H</strong>: Particulate Matter - Wood Heaters</td>
<td>Same as M-5 revisions.</td>
<td>x</td>
</tr>
<tr>
<td><strong>M-5I</strong>: Low Level Particulate Matter</td>
<td>Same as M-5 revisions.</td>
<td>x</td>
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<td><strong>M-6C</strong>: Sulfur Dioxide - Instrumental Analyzer</td>
<td>Language detailing the performance of interference checks has been revised and the discussion of CO2 quenching removed.</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-7E</strong>: Nitrogen Dioxide - Instrumental Analyzer</td>
<td>Specifications for 3-point sampling line revised to be consistent with PS-2, language regarding quenching removed, revision to language regarding interference tests, correction of mispellings.</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-10, 10A &amp; 10B</strong>: Carbon Monoxide</td>
<td>Revised to allow the use of sample tanks as an alternative to flexible bags.</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-15</strong>: H2S, COS, CS2</td>
<td>Clarify partial calibration.</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-16C</strong>: Total Reduced Sulfur - Real Time Data</td>
<td>Equation 16-1 revised, nomenclature revisions.</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-18</strong>: Volatile Organic Compounds - GC</td>
<td>Redundant language removed (analysis of 2 field audit samples)</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-25C</strong>: Nonmethane Organic Compounds in Landfill Gas</td>
<td>Revise references, language revisions and correction of an equation to correct for ambient air dilution.</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-26</strong>: Hydrogen Halide and Halogen</td>
<td>Revise language regarding method detection limit</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-26A</strong>: Hydrogen Halide and Halogen - Isokinetic Method</td>
<td>Language regarding minimizing chloride interferences is added, corrections to probe and filter temperatures were made.</td>
<td>Clarical</td>
</tr>
<tr>
<td><strong>M-29</strong>: Metals Emissions from Stationary Sources</td>
<td>Language requiring the rinsing (with HCl) of impingers containing permanganate is added and language regarding balance calibration added.</td>
<td>Clarical</td>
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## Summary of Revisions to Test Methods & Performance Specifications

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<tr>
<td>M-30A : Mercury Instrumental Procedure</td>
<td>Section title revision</td>
<td>x, x</td>
</tr>
<tr>
<td>M-30B : Mercury Sorbent Trap Procedure</td>
<td>Section title revision, ASTM method number corrected, and previously omitted sentences about sample handling were re-inserted.</td>
<td>x, x</td>
</tr>
<tr>
<td>PS-1 : COMS</td>
<td>Revise limits on location of COMS</td>
<td>x</td>
</tr>
<tr>
<td>PS-2 : NOx/SO2</td>
<td>Revise definition of &quot;Span&quot;.</td>
<td>x</td>
</tr>
<tr>
<td>PS-3 : O2/CO2</td>
<td>Revision to RA calculation</td>
<td>x</td>
</tr>
<tr>
<td>PS-4A : Low Level CO</td>
<td>Revised response time procedure and limit.</td>
<td>x</td>
</tr>
<tr>
<td>PS-11 : Particulate Matter</td>
<td>Equations 11-1 and 11-2 revised.</td>
<td>x</td>
</tr>
<tr>
<td>PS-15 : FTIR</td>
<td>Statement regarding audit sample removed.</td>
<td>x</td>
</tr>
<tr>
<td>PS-16 : PEMS</td>
<td>Table 16-1 revised to correlate to conventional statistical applications (standard t-tables)</td>
<td>x</td>
</tr>
</tbody>
</table>
Revised Methods Affecting MATS Testing

**Mercury (Hg)**
- Hg CEMS
  - Hg Monitor PS-12A
  - Hg Sorbent Trap System PS-12B
  - M-30B

**Acid Gasses**
- SO2
  - SO2 CEMS if FGD
  - Quarterly stack test by M-26A
  - M-6C
  - M-26, M-26A

- HCl
  - HCl CEMS certified by PS-15
  - M-26, M-26A, PS-15

**Non Hg HAPS Metals**
- PM as surrogate
  - PM Monitor
  - M-1, M-2, M-2 & 2G, M-4, M-5, M-29, PS-11

- Total Metals
  - EPA M-29 - report all metals together
  - M-1, M-2, M-4, M-5, M-29

- Individual Metals
  - EPA M-29 - report 10 individual metals
Questions?

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