

# RMB CONSULTING & RESEARCH BULLETIN

## MATS COMPLIANCE

February 2014

For many existing affected units, compliance with Subpart UUUUU to 40 CFR Part 63 (typically referred to as the Utility MATS Rule) begins on April 16, 2015, although the rule does include a provision for a one-year extension for sources that need more time to install emissions controls. While the units must be able to meet the applicable MATS emissions limits by April 16, 2015 (or April 16, 2016 if an extension applies), the rule allows sources to conduct the required compliance tests within 180 calendar days after the compliance date. For sources using a continuous emission monitoring system (CEMS) to demonstrate compliance, the CEMS initial certification should be completed early enough in the 180 day window to ensure that the first 30-day rolling average for the applicable pollutant is obtained within this 180-day period. EPA also requires the preparation and, in some cases, the submittal of numerous documents associated with the MATS CEMS performance and compliance tests. The table below provides a summary of several key regulatory submittal milestones and the applicable regulatory deadlines.

Requirement	Citation(s)	Deadline
Site-Specific Monitoring Plan	63.10000(d)	At least 60 days prior to compliance tests and/or CEMS performance tests.
Hg CEMS Monitoring Plan	Section 7.2.3.1, App. A Subpart UUUUU	At least 21 days prior to April 16, 2015 <sup>1</sup>
Site-Specific Performance Evaluation Plan	63.7(b), 63.8(e) 63.10007(a)	At least 60 days prior to compliance tests and/or CEMS performance tests.
Notification of Performance Test(s)	63.7(b), 63.8(e)(2) 63.9(e)	At least 60 days prior to compliance tests and/or CEMS performance tests.
Performance Evaluation Reports	63.7, 63.8(e) 63.10031(f)	No later than 60 days after completing the last performance test.
Notification of Compliance Status	63.9(h), 63.10030(e)	No later than the close of business following the 60 <sup>th</sup> day following completion of the performance tests.
MATS CEMS QA/QC Plan	Section 5.4, App. A Subpart UUUUU	No date specified. Should be completed prior to beginning the certification testing.
Semi-Annual Compliance Reports	63.10031(a)(1)	First report due by July 31 or January 31, as applicable, following the end of the first semi-annual calendar period that occurs 180 days after the compliance date.

<sup>1</sup> Alternately, no later than 180 days after April 16, 2015 or an EPA approved extension

For many sources, the new monitoring systems will be unfamiliar and will require a shakedown period to become proficient in the operation and maintenance of the equipment. This is true even for sources simply using monitoring systems (e.g., Hg and PM CEMS) as process monitors to gauge ongoing compliance. The ongoing quality assurance/quality control (QA/QC) requirements coupled with the preventive and corrective maintenance activities will necessitate a considerable effort, in addition to the requirements for existing Part 75 and Part 60 CEMS. Even if your source intends to use quarterly testing options, complying with the low MATS limits will require greater attention to stack testing procedures to ensure the accurate measurements. RMB personnel have provided consulting services to the electric utility industry and industrial sources for over twenty years and can provide a wide range of MATS related services based on a wealth of regulatory and CEMS experience.

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## Blind Audit Samples

Sections 60.8(g) and 63.7(c)(2)(iii) require the use of blind audit samples for certain test methods as part of the test method performance audit requirements. This requirement became effective June 16, 2013. RMB notes that audit samples are not available for all test methods. Currently, the only Reference Methods for which there are audit samples include RM-8, RM-13, RM-23, RM-25, RM-26/26A, RM-29 and RM-101A. For the Utility MATS Rule and the Industrial Boiler MACT, audit samples are currently only being required for the HCl testing using RM-26A. Sources are required to order the audit samples from an accredited audit sample supplier and provide the samples to the test crew during the test program. Following completion of the testing, sources are responsible for collecting the test results and audit sample results and submitting them to the Agency (included in final report). Audit samples should be ordered 30 days in advance of the test date to provide adequate delivery time. The samples may not be analyzed by a laboratory other than the one designated when the order is placed. If another lab conducts the analysis, this breaks the chain-of-custody protocol and invalidates the results. Sources are required to notify their State agency that audit samples will be used in the upcoming test. Additional information concerning the blind audit program may be found at <http://www.epa.gov/ttn/emc/email.html#audit>.

## CEMS Equipment Enhancements

For many years, RMB has continued to work with EPRI and individual utilities to improve CEMS equipment performance, accuracy and automation. On behalf of EPRI, RMB has hosted technician workshops to identify the best designs and practices for operating and maintaining Part 75, CO, PM and Hg CEMS. RMB has also worked with many individual utilities to assess their O&M practices, identify potential equipment enhancements and to increase CEMS program efficiency – focusing on the overall, long-term costs, and not just the initial capital costs.

One of the most opportune times to incorporate these types of CEMS programs and/or equipment enhancements is during a system replacement or upgrade project. It is also important to include detailed requirements for any desired modifications in a technical bid package in order to ensure that these enhancements are properly and fully implemented. In some cases, utilities are still over-reporting emissions by 10% or more. RMB has assisted numerous sources with the procurement, installation and certification of CEMS including PM, Hg and standard Part 75 systems. CEMS program enhancements being implemented include design modifications, software changes, equipment upgrades, and O&M procedure modifications. As new CEMS are installed or existing CEMS are upgraded to comply with the MATS rule, RMB can assist with CEMS enhancements that would be beneficial from both compliance and O&M cost standpoints. Specific O&M and QA/QC program enhancements are also available for CEMS intended to be used as process monitors in MATS rule compliance efforts. RMB has assisted numerous sources with the procurement, installation and certification of CEMS including PM, Hg and standard Part 75 systems.

### **Plan to Attend Our CEMS Users Training Course**

April 1 – 3, 2014  
Raleigh, NC

For more information  
Contact Robert Bivens at  
(919) 791-3133

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## **LEE Qualification for Mercury**

Under the MATS sources with very low Hg emissions can minimize monitoring and testing by using the "LEE" (i.e., Low Emitting EGU) provisions. For Hg, since there is no quarterly testing option, the LEE provisions represent the only way to avoid the continuous use of Hg CEMS or sorbent trap systems. To qualify for LEE, sources must demonstrate on an annual basis that the emissions are either less than 10% of the applicable emissions limit or that the maximum potential emissions of Hg are less than 29 lbs/yr using EPA Reference Method 30B data collected over 30 boiler operating days. LEE Qualification testing can be performed up to 1 year prior to the MATS compliance date. As a result, utilities that believe they can meet the requirements of this provision may perform the required testing starting this April!

RMB personnel have a tremendous amount of field experience with all aspects of Reference Method 30B and the associated analytical requirements that can be applied to help utilities conduct these qualification tests. In addition, RMB personnel proposed an alternative moisture determination method specifically for use during Hg LEE qualification in lieu of EPA Method 4 measurements. This alternative method (Alt-091) was accepted by EPA and can be found on their website at the following link: <http://www.epa.gov/ttn/emc/approalt.html>. As part of various MATS assessments, RMB personnel have already assisted several facilities to successfully complete all the requirements necessary for demonstrating LEE qualification. This support included, but was not limited to: procuring testing equipment, performing testing and providing onsite training, conducting onsite analysis and analytical training, and performing all necessary calculations to demonstrate LEE qualification.

## **Hg CEMS Generator Certification and Quality Assurance**

The QA/QC tests required by the Utility MATS Rule for Hg CEMS (e.g., daily calibration error tests, linearity checks and system integrity checks) must be conducted using NIST-traceable calibration standards. Sections 3.1.4 and 3.1.5 of Appendix A define the NIST-traceable standards for elemental and oxidized Hg, respectively. Both definitions specifically reference the respective EPA traceability protocols. For example, Section 3.1.4 defines a NIST-traceable elemental Hg standard as a known concentration of elemental Hg that has been prepared by a generator that meets the performance requirements specified in "EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators." Currently, there is a misconception that a generator can be simply recalibrated on an annual basis. However, the EPA Traceability Protocol for elemental Hg generators requires quarterly QA tests and a generator recertification once every eight (8) calendar quarters (or after an event that triggers recertification). For oxidized Hg generators, the EPA Traceability Protocol requires monthly QA tests and a recertification once every eight (8) calendar quarters. RMB worked in concert with EPA to develop the NIST Traceability Protocols and has assisted several sources with the initial certification and ongoing QA/QC activities required by the NIST Traceability Protocols to maintain traceability. RMB has also provided onsite training to plant personnel for conducting the ongoing generator QA procedures and can assist plants with the development of a QA program that is best for them.

## RMB STAFF

For additional information concerning any of RMB's services, please do not hesitate to contact one of our staff members.

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### Other RMB Services:

- *CEMS Program Audits*
- *EDR Support Services*
- *EPA Petitions*
- *Greenhouse Gas Rule Assistance*
- *CAM Plan Development*
- *Compliance Test Management*
- *Litigation Support & Expert Testimony*

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