MATS Rule Implementation

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MATS Rule Implementation

- Existing Unit Compliance Date = April 16, 2015
  - Demonstrate compliance no later than 180 days after April 16, 2015
    » Equates to October 13, 2015
  - Includes CEMS installation/certification, boiler tune-ups and performance tests
  - Allow time to obtain 30-boiler operating day averages
    » Must have 30 days of data prior to October 13, 2015
  - Post April 16, 2015 potential compliance risk

- May Apply for One-Year Extension

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MATS Rule Implementation

• Subpart UUUUUU Relies on Part 63 General Provisions
  • §63.7 general provisions for performance tests
  • §63.8 general provisions for CEMS (CMS) performance evaluation tests
  • §63.9 notification requirements
  • §63.10 recordkeeping and reporting requirements

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MATS Rule Implementation

- Site-Specific Monitoring Plan (SSMP)
- Site-Specific Performance Evaluation Plan (for CEMS)
- Site-Specific Performance Test Plan (for stack testing)
- Quality Assurance (QA) Plans
- Boiler Tune-ups
- Performance Evaluation & Test Reports
- Notification of Compliance Status
Site-Specific Monitoring Plan

◆ Site-Specific Monitoring Plan (SSMP) Contents

- Section 63.10000(d)
- Required for CEMS and CMS
- Develop (and submit if requested) at least 60 days prior to performance evaluation tests
- Not required for CEMS operating in accordance with Parts 60 and/or 75 (Section 63.10000(d)(2))
- More detail than a standard Part 75 Monitoring Plan
- Recommended as an in-house reference document
Site-Specific Monitoring Plan

- Site-Specific Monitoring Plan continued
  - Installation of CEMS relative to unit’s pollution control device(s)
  - Performance & equipment specifications for CEMS & DAHS
  - Schedule for performing initial & periodic performance evaluations
  - Performance evaluations & acceptance criteria, including ongoing QA procedures
Site-Specific Monitoring Plan

- Site-Specific Monitoring Plan continued
  - Ongoing operation & maintenance procedures,
  - Conditions that define when CEMS are out-of-control & corrective action, and
  - Ongoing recordkeeping & reporting procedures.
  - Recommend including other MATS compliance (i.e., quarterly testing, Hg LEE testing)
Site-Specific Monitoring Plan

◆ Site-Specific Monitoring Plan continued
  • If using quarterly PM testing & Startup Definition 2, Section 63.10010(1) Site-Specific Monitoring Plan
    » Monitoring system installation
    » Performance & equipment specifications
    » Ongoing operation & maintenance procedures
    » Ongoing recordkeeping & reporting procedures
    » Operate & maintain monitoring system according to Site-Specific Monitoring Plan
ECMPS & Hardcopy Monitoring Plan

- Hg CEMS Monitoring Plan (Section 7.1.1, Appendix A, Subpart UUUUU)
- HCl CEMS Monitoring Plan (Section 10.1.1, Appendix B, Subpart UUUUU)
  - ECMPS Monitoring Plan printout,
  - Data flow diagrams,
  - Test protocols, and
  - Monitor span & range calculations.
- Overlap Between SSMP Content
- Due At Least 21 Days Prior to Compliance Date

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Site-Specific Performance Evaluation Plan

- Site-Specific Performance Evaluation Plan
  - Sections 63.10007(a) and 63.8(e)
  - For new Hg, PM and HCl CEMS
  - Develop (and submit if requested) at least 60 days prior to first performance evaluation test (initial certification)
  - Include discussion of all performance evaluation (certification) tests

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Site-Specific Performance Test Plan

- Site-Specific Performance Test Plan
  - Sections 63.10007(a) and 63.7(b)
  - For MATS compliance testing (quarterly compliance testing, Hg LEE demonstration testing)
  - Develop (and submit if requested) at least 60 days prior to first performance test (compliance test)

- May Be Supplemented By Test Protocol
Site-Specific Performance Test Plan

- Blind Audit Sample Program (June 16, 2013)
  - Required by Sections 60.8(g) and 63.7(c)(2)(iii)
  - Blind audits must be used for MATS HCl testing
  - Allow at least 30 days for delivery of sample
  - [http://www.epa.gov/ttn/emc/email.html#audit](http://www.epa.gov/ttn/emc/email.html#audit)
Notifications

◆ Notification of Performance Tests

- Section 63.10030(d) – “at least 30 days before the performance test is scheduled”
- Sections 63.7(b), 63.8(e)(2) & 63.9(e) – “at least 60 calendar days before the performance test”
- Section 63.9(j) – submit notification of performance test schedule change “within 15 calendar days after the change”
Quality Assurance Plan

- Revise To Include Hg, HCl and PM CEMS QA/QC Requirements, as applicable
- Recommend Incorporating Into Existing Part 75 QA Plan
- Linearity check required for SO$_2$ analyzers used for MATS compliance with span values $\leq$ 30 ppm
  - Different from Subpart Da cylinder gas audit requirement
Quality Assurance Plan

◆ Hg CEMS
  ● Subpart UUUU, Appendix A
  ● QA test frequency based on “unit QA operating quarters”
  ● Linearity check & RATA grace period provisions
  ● No grace period for weekly system integrity check
  ● Conditionally valid data procedures
  ● Recommend including Hg generator QA requirements to maintain NIST-traceability
Quality Assurance Plan

◆ Hg Sorbent Trap Monitoring Systems
  ● Subpart UUUU, Appendix A and Performance Specification 12B
  ● Dry gas meter, mass flow meter, temperature & barometric pressure sensor QA tests conducted “quarterly” per PS-12B
  ● RATA frequency based on “unit QA operating quarters”
  ● RATA grace period provisions
  ● No conditionally valid data periods

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Quality Assurance Plan

◆ PM CEMS

- Procedure 2, Appendix F, 40 CFR 60
- Not required to be online for daily calibrations
- QA tests conducted on a calendar quarter basis
- Quarterly tests separated by at least 2 months (versus 30 days for Part 75 linearity checks)
- Relative Response Audit (RRA) at least once annually
- Relative Correlation Audit (RCA) at least once every three years
- No grace period provisions & no conditionally valid data procedures

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Quality Assurance Plan

- **HCl CEMS**
  - Subpart UUUUU, Appendix B and Procedure 6, Appendix F, 40 CFR 60
  - QA test frequency based on “unit QA operating quarters”
  - Grace period provisions
  - Conditionally valid data procedures
Boiler Tune-ups

◆ Boiler Performance Tune-ups
  ● Use of prior tune-ups - §63.10005(f)
    » Existing units without neural network - 42 months
    » Existing units with neural network – 54 months
  ● Ongoing boiler performance tune-ups - §63.100021(e)
    » Existing units without neural network - 36 months
    » Existing units with neural network – 48 months
Boiler Tune-ups

- Boiler Performance Tune-ups - §63.10021(e)
  - Inspect burners & combustion controls
    » Repairs that affect NO\textsubscript{X} & CO – Within 3 months
    » Other repairs on schedule determined by operator
    » Don’t forget these!
  - Inspect & adjust flame pattern
  - Observe damper operations
  - Evaluate windbox pressures & air proportions
  - Inspect air-to-fuel ratio system

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Boiler Tune-ups

◆ Boiler Performance Tune-ups
  ● Pre- and post-adjustment NO$_X$, CO and O$_2$ emissions data
    » Plant CEMS data (e.g., stack, process CO, inlet/outlet CEMS)
    » Portable monitors may be used
  ● §63.10005(e)(8) – Maintain onsite, and submit if requested, boiler tune-up report
  ● Boiler tune-up documentation is critical

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Performance Test Reports

- Performance Evaluation and/or Test Reports
  - Sections 63.10031(f), 63.7 and 63.8(e)
  - No later sixty (60) days after completing performance tests or CEMS performance evaluation tests
  - Example tests include Hg & SO₂ CEMS RATAs, quarterly performance tests, Hg LEE tests, PM CEMS RRAs and RCAs
  - Submitted as a .pdf file via ECMPS
Performance Evaluation Reports

◆ Hg and HCl CEMS Performance Evaluation (Initial Certification) Results
  ● Submitted electronically via ECMPS
  ● RATA report also submitted as .pdf via ECMPS
  ● Recommend developing a hardcopy report similar to Part 75 certification application

◆ PM CEMS Initial Certification (PS-11) Results Not Submitted To EPA

◆ Require Test Contractor To Prepare Distinct MATS Reports
Notification of Compliance Status

- Notification of Compliance Status
  - Sections 63.10030(e) and 63.9(h)
  - No later than the close of business following the 60th day after completing relevant compliance demonstration (May require separate submittals)
  - Identify input or output emission limits for compliance
  - Identify use of Startup Definition 1 or 2
  - Signed and certified by “responsible official”
  - Submitted via ECMPS “MATS PDF SUBMIT”
Quarterly Reports

- Quarterly Reports - Hg, SO₂ and HCl CEMS
  - Monitoring Plan, QA tests and emissions data submitted via ECMPS Client Tool
  - No later than 30 days after the end of each calendar quarter
  - EPA has published recent draft revisions to the ECMPS Reporting Instructions
Quarterly Reports

- Quarterly Reports – PM CEMS and PM CPMS
  - Submitted via ECMPS “MATS PDF SUBMIT”
  - No later than 60 days after the end of the reporting period ending on March 31, June 30, September 30 & December 31
  - Report includes all 30-boiler operating day rolling averages
Semi-Annual Compliance Reports

- Semi-Annual Compliance Reports
  - Sections 63.10031(b) & 63.10(e) (See Table 8)
  - Initial report for existing units due no later than January 31, 2016 (1st date that occurs 180 days after applicable compliance date)
    » Unique report
  - Future reports postmarked or submitted electronically no later than July 31 and January 31 of each calendar year
  - Submit via ECMPS “MATS PDF SUBMIT”
Semi-Annual Compliance Reports

- Semi-Annual Compliance Report continued
  - Summary report content required by §63.10(e)(3)(vi)
  - Total fuel usage
  - Notification of new fuel(s) combusted
  - Date of most recent boiler performance tune-up
  - Deviations from any emission limit, operating limit or work practice requirement
  - Excess emissions - §63.10031(d)
Semi-Annual Compliance Reports

◆ Semi-Annual Compliance Report continued
  • Excess emissions - §§63.10031(d) & 63.10(e)(3)
    » Submit with the Semi-Annual Compliance Report
    » Excess Emission Summary Report required if (1) the excess emissions are less than 1% of the total operating time for the reporting period and (2) the CEMS downtime is less than 5% of the total operating time for the reporting period [§63.10(e)(3)(vii)]
    » If these criteria are exceeded, then submit detailed Excess Emission Report

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Semi-Annual Compliance Reports

◆ Semi-Annual Compliance Report Contents If Using Startup Definition 2
  • Maximum clean fuel storage capacity & maximum hourly heat input for each clean fuel
  • For each startup
    » Date & time of clean fuels combusted
    » Electrical load for each hour of startup
    » Date & time that non-clean fuel combustion begins
    » Date & time clean fuel combustion ends
Semi-Annual Compliance Reports

◆ Semi-Annual Compliance Report Contents, If Using Startup Definition 2
  • For each shutdown
    » Date & time of clean fuels combustion begins
    » Electrical load for each hour of startup
    » Date & time that non-clean fuel combustion ends
    » Date & time clean fuel combustion ends