



# SC DEPARTMENT *of* **ENVIRONMENTAL SERVICES**

## MEMORANDUM

**TO:** **BAQ Air Permitting Division**

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**DATE:** **May 5, 2020**

**SUBJECT:** **Streamlining PM Source Testing for Requirements Contained in Standard No. 1 and 40 CFR 63, Subpart DDDDD**

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The following document is intended to be used strictly as guidance and should not be relied upon to create any substantive or procedural rights. The Department reserves the right to act in variance with this guidance.

SC Regulation 61-62.5 Standard No. 1 limits PM emissions from boilers less than 1300 million British thermal units (Btu/hr) heat input to 0.6 pounds (lbs) per million Btu heat input. Section VI, Periodic Testing, requires oil-fired boilers greater than 250 X 10<sup>6</sup> Btu/hr rated input, coal-fired boilers greater than 50 X 10<sup>6</sup> Btu/hr rated input and woodwaste or combination woodwaste boilers greater than 20 X 10<sup>6</sup> Btu/hr rated input conduct periodic particulate matter emissions tests every two (2) years or as required by permit conditions. The statement "or as required by permit conditions" provides the Department flexibility to require source testing on a frequency other than every two years. In addition, the March 5, 1996, EPA White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program (EPA White Paper No. 2) provides guidance indicating it is acceptable to streamline multiple permit requirements, including monitoring. Accordingly, this memorandum addresses opportunities for streamlined PM testing for requirements in Standard No. 1 and 40 CFR Part 63 Subpart DDDDD, National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT or Subpart DDDDD).

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### **Use of Subpart DDDDD Annual/Triennial Testing for Compliance with Standard No. 1 Test Requirements**

Subpart DDDDD requires covered sources to conduct source testing for PM emissions on either an annual or every three (3) year schedule. Depending on the source, the allowable PM emissions per million Btu/hr heat input in Subpart DDDDD ranges from 0.0011 lb/million Btu heat input to 0.44 lb/million Btu heat input, which equates to 0.183% to 73% of the 0.6 lbs per million Btu/hr input emission limit under Standard No. 1. In order to conduct a performance test every three years (as opposed to annually) the source must complete two consecutive annual tests and demonstrate that its emissions are at or below 75% of the applicable Subpart DDDDD PM limit, and that there are no changes in the operation of the source or its associated pollution control equipment that could increase emissions. Based on this criteria, a source eligible for a three-year test cycle under Subpart DDDDD would emit between 0.137% to 55% of the Standard No. 1 PM emissions limit at most, depending on the applicable Subpart DDDDD limit.

The Department has determined that the PM testing as allowed in Subpart DDDDD may be used to determine compliance with the Standard No. 1 PM allowable emission limit. As indicated above, to be eligible for testing every three years, a source cannot have tested at more than 0.137% to 55% of the Standard No. 1 allowable limit (depending on the applicable Subpart DDDDD limit) in two consecutive annual tests. Otherwise the source would be required to test annually. If a source is able to establish the three-year test frequency, it would result in 33% reduction in the number of source tests for Standard No. 1 compliance. Also, the PM source testing required by Standard No. 1 does not include a soot blowing run. The PM testing required by Subpart DDDDD requires a soot blowing run and the calculation of a weighted average emissions rate, making it harder to meet the lower emission limitations in subpart DDDDD and more difficult to qualify for the reduced source testing frequency contained in Subpart DDDDD. The Department believes the more stringent emission levels the source must achieve to qualify for the three-year test cycle in Subpart DDDDD offset the reduced Standard No. 1 test frequency and will achieve the same level of compliance.

### **Streamlining for Limited Use Boilers Subject to Subpart DDDD and Standard No. 1**

Facilities with boilers designated as "limited use" under the Boiler MACT may request a case by case determination to waive the source test required by Standard No. 1 or extend the time between stack testing. The facility should provide in the request the past compliance history with respect to PM testing and how the results compared to the Standard No. 1 limit. The facility should also provide other relevant compliance history information, such as compliance history with periodic monitoring (Visual emissions, pressure drop, COM) and

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compliance history with SO<sub>2</sub>, if applicable. The facility should explain how it intends to operate the boiler under limited use. For example, will the 10% capacity be used in one block period or intermittent use? What fuels does the facility intend to burn?

### **Process for Seeking Streamlined Source Test Requirements for Facilities Subject to Annual/Triennial Testing Under Subpart DDDDD**

A facility subject to Subpart DDDDD's annual/triennial testing requirements may seek streamlined testing requirements through a Title V minor modification; however, if other requirements are streamlined a significant modification to the Title V permit would be required. If a source makes a Title V request (either for a minor modification or for a new or renewed Title V permit) to use streamlined testing required by Subpart DDDDD, the permit engineer/engineering associate should consult with the air toxics section to make sure the facility is subject to the annual/triennial testing. The permit engineer should also consult with appropriate Bureau staff to determine if there is an existing Standard No. 1 compliance issue. Once confirmed, the permit engineer should include the condition below in the permit to ensure the testing completed provides the proper information to show compliance with Standard No. 1. If at any time Subpart DDDDD is vacated or changed in any way, the Department may at its discretion revert back to a requirement to conduct the source test every 2 years. A file review should be completed for existing sources that request to use the Boiler MACT test schedule based on results of previous MACT testing to confirm the test results.

If the boiler is subject to Compliance Assurance Monitoring (CAM) and stack testing is part of CAM compliance, the facility must submit a new CAM plan. Any changes to the CAM plan deemed to be less stringent will trigger a significant Title V modification; otherwise, it would require a Title V minor modification.

### **Sample Permit Language**

The following condition should be used in permits for which the testing requirements in 40 CFR Part 63, Subpart DDDDD, National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters are used for Standard No. 1 compliance. The condition should be placed in the Standard No. 1 testing section.

*In lieu of biennial PM testing under SC Regulation 61-62.5 Standard No. 1, PM source testing for Standard No. 1 shall be conducted in accordance with 40 CFR 63, Subpart DDDDD, National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. Should the applicability of Subpart DDDDD change or if the Subpart DDDDD testing requirements are modified to be less stringent, the facility must comply with the Standard No. 1 biennial testing requirements. All source tests shall be completed to*

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*ensure the results are acceptable for use in demonstrating compliance with Standard No. 1 allowable PM emission limits.*

**Condition for when testing is waived for a “limited use” boiler.**

*Provided the boiler maintains its status as a “limited use” boiler under the Boiler MACT and complies with the “limited use” Boiler MACT requirements, a biennial source test will not be required. If at any time the boiler fails to comply with the MACT requirements for a “limited use” boiler, or the applicability to Subpart DDDDD changes, a PM source test must be completed within 180 days of being notified by the Department to source test.*

**Caveats:**

- This guidance does not apply to Utility boilers that have a total equipment capacity rating greater than 1300 million Btu/hr heat input, and as such may have lower Standard No. 1 allowable PM limits. These units may submit a case by case determination to justify using a different source test schedule.
- This guidance applies to sources subject to annual/triennial PM testing under Subpart DDDDD. Sources subject to PM testing under other MACT standards will require a case-by- case review.
- This guidance does not apply to sources where stack test requirements may be less stringent under Subpart DDDDD.
- Both Standard No. 1 and Subpart DDDDD limits still apply, and the testing results should be compared to both limits for compliance.
- This streamlining guidance does not apply to a facility in non-compliance with Standard No. 1.
- Although Subpart DDDDD testing may be used for Standard No. 1 compliance, all other requirements of Standard No. 1 are applicable.
- Compliance Assurance Monitoring (CAM), if applicable, is still required for Standard No. 1 and may require more stringent testing than Subpart DDDDD. Presumptive MACT (CAM allowance) does not apply to Standard No. 1.

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<b>Record of Revisions</b>	
<b>DATE</b>	<b>Description of Change</b>
August 16, 2016	Initial Draft Memo
May 5, 2020	Final Memo
July 1, 2024	Updated to new agency logo