

Environmental Quality Board Meeting Harrisburg, PA April 17, 2012

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Background:

- The Clean Air Act (CAA) requires State and local air pollution control agencies to develop, and submit to the U.S. Environmental Protection Agency (EPA) for approval, revisions to the State Implementation Plan to provide for the attainment, maintenance and enforcement of the National Ambient Air Quality Standards (NAAQS) including PM-10 and PM_{2.5} in each air quality control region.
- The emissions inventories and analyses used in the State's attainment demonstrations must consider PM-10 and PM_{2.5} emissions from stationary sources that are significant contributors of PM-10 and PM_{2.5} emissions.
- Federal regulations define PM-10 and PM_{2.5} as including both the filterable and condensable fractions of particulate matter (PM). Filterable PM consists of those particles that are directly emitted by a source as a solid or liquid at the stack and captured on the filter of a stack test train.
- Condensable PM is the material that is in vapor phase at stack conditions but condenses or reacts, or both, upon cooling and dilution in the ambient air to form solid or liquid PM immediately after discharge from the stack.



Background (cont.):

- On December 10, 2010, EPA promulgated revisions to its test methods for measuring filterable PM-10 and PM_{2.5} and for measuring condensable PM emissions from stationary sources (75 FR 80118). The final amendments to Method 201A add a particle-sizing device to allow for sampling of filterable PM_{2.5}.
- The final amendments to Method 202 revise the sample collection and recovery procedures of the method to reduce the formation of reaction artifacts that could lead to inaccurate measurements of condensable PM. The Department incorporates these methods in the Department's Source Testing Manual by reference under § 139.4(5).
- The proposed rulemaking accounts for emissions of condensable PM, which contribute to the formation of PM_{2.5} in the atmosphere. Attaining and maintaining the PM_{2.5} NAAQS is inherently more significant to the management of public health and welfare effects than attaining and maintaining prior PM NAAQS which address larger particles.
- It is important that the Commonwealth's air quality management of PM_{2.5} promote a comprehensive and inclusive approach to measuring condensable PM emissions. Improved data will support development of better control strategies to reduce emissions of condensable PM and improve public health and welfare in areas that are designated as nonattainment for PM_{2.5}.

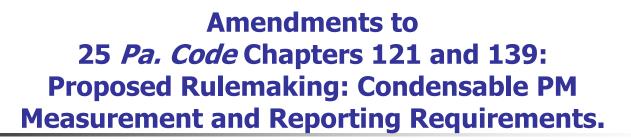


Proposed Regulation:

- The proposed rulemaking adds definitions for the terms "condensable particulate matter" and "filterable particulate matter" to § 121.1.
- The proposed subsection (a) of § 139.12 provides that the owner and operator of a stationary source subject to the particulate matter emission standards in 25 Pa. Code §§ 123.11—123.13 (relating to combustion units; incinerators; and processes) are required to test only for filterable PM.
- The proposed subsection (b) of § 139.12 specifies that the owner or operator of a stationary source subject to PM-10 and PM_{2.5} emission limitations must demonstrate compliance with those limitations by measuring both filterable and condensable particulate matter.
- This subsection also clarifies that the owner and operator of a stationary source subject to applicability determinations for the prevention of significant deterioration of air quality and new source review programs established in Chapter 127, Subchapters D and E, respectively must also demonstrate compliance for both filterable and condensable PM-10 and PM_{2,5} emissions.

Proposed Regulation (cont.):

- As proposed, subsection (c) of § 139.12(c) specifies that compliance with a PM emission limitation issued by the Department prior to January 1, 2011, shall not be based on condensable PM unless required by the terms and conditions of a plan approval, operating permit or the State Implementation Plan.
- As proposed subsection (d) of § 139.12(d) provides that a compliance demonstration required under subsection (b) or (c) must include the measurement and reporting of filterable and condensable PM. The test methods and procedures must be equivalent to those specified in § 139.4(5) (relating to references).
- The proposed rulemaking also amends § 139.53 (relating to filing monitoring reports) to specify that the periodic emissions monitoring test reports must be submitted to the applicable Regional Air Program Manager instead of the Regional Air Pollution Control Engineer, and a copy of the report must be submitted to the Chief of the Division of Source Testing and Monitoring.



Proposed Regulation (con't):

- The proposed rulemaking would update and clarify certain testing and reporting requirements in Chapter 139 regarding emissions of filterable and condensable particulate matter (PM) to which certain source owners and operators are already subject.
- The proposed amendments will improve regional consistency for permitting and enforcement and clarify certain requirements for owners and operators of affected sources regarding compliance demonstrations for PM emissions.
- The proposed rulemaking will not be more stringent than Federal requirements. Companion Federal regulations were promulgated by EPA on December 21, 2010 (75 FR 80118).
- If published in the *Pennsylvania Bulletin* as a final rulemaking, the final-form regulation will be submitted to the EPA as a revision to the State Implementation Plan.

Affected Parties and Compliance Information:

- The proposed rulemaking would affect the owners or operators of stationary sources subject to particulate matter emission limitations for air contaminants including PM-10 and PM_{2.5}. Affected source categories include power plants, industrial boilers and other industrial burning or combustion-related activities.
- The owners and operators of stationary sources subject to applicability determinations for the Prevention of Significant Deterioration and New Source Review Programs codified in 25 Pa. Code Chapter 127, Subchapters D and E (relating to prevention of significant deterioration of air quality; and new source review) would also be affected by this proposal.
- Because this proposed rulemaking updates and clarifies certain requirements to which source owners and operators are already subject, the rulemaking should not impose new or additional requirements or compliance costs and is not expected to be controversial.

Advisory Committee Review:

- The Department discussed the proposed rulemaking with the Air Quality Technical Advisory Committee (AQTAC) at its October 20, 2011, meeting. AQTAC recommended clarifications be made regarding the definition of "condensable particulate matter" and the effective compliance date. The committee voted 11-5 to present the rulemaking to the Board for consideration. The proposed rulemaking has been revised to address the AQTAC's concerns.
- The proposed rulemaking was discussed with the Citizens Advisory Council (CAC) Air Committee on January 31, 2012. On the recommendation of the Air Committee, on February 22, 2012, the CAC voted to concur with proceeding the rulemaking to the Board.



Recommendations:

- DEP recommends the Board approve the proposed rulemaking to amend Chapters 121 and 139 to require condensable PM measurement and reporting.
- DEP also recommends three public hearings and a 60-day public comment period.



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