

Executive Summary
Amendments to 25 Pa. Code Chapters 121 and 139
Measurement and Reporting of Condensable Particulate Matter Emissions

The Department of Environmental Protection (Department) recommends proposed amendments to 25 Pa. Code Chapters 121 and 139 (relating to general provisions; and sampling and testing) for consideration by the Environmental Quality Board (Board). The proposed amendments would improve regional consistency for permitting and enforcement and clarify certain requirements for owners and operators of affected sources regarding compliance demonstrations for particulate matter (PM) emissions. Affected source types include power plants, industrial boilers and other industrial burning or combustion-related activities.

Purpose of the Proposed Rulemaking

The proposed rulemaking would update and clarify certain testing and reporting requirements in Chapter 139 regarding emissions of filterable and condensable PM to which certain source owners and operators are already subject. Emissions of condensable PM contribute to the formation of fine particulate, or PM_{2.5}, in the atmosphere.

The proposed rulemaking would update § 139.12 (relating to emissions of particulate matter) to clarify implementation of the revisions promulgated by the United States Environmental Protection Agency (EPA) at 75 FR 80118 (December 21, 2010) to its test method 201A for measuring filterable particulate matter less than or equal to 10 micrometers in diameter (PM-10) and its test method 202 for measuring condensable PM emissions from stationary sources. The revisions to test method 201A improve the measurement of PM to include sampling of PM_{2.5} emissions in addition to PM-10 emissions. The revisions to test method 202 increase the precision and improve the consistency of the method for measuring condensable PM. The Department incorporates these methods by reference in the Department's *Source Testing Manual* under § 139.4(5) (relating to references).

Because condensable particulate emissions exist almost entirely in the 2.5 micrometer range and smaller, and epidemiological studies have shown a significant correlation between elevated PM_{2.5} levels and premature death, aggravation of heart and lung disease and asthma attacks, attaining and maintaining the PM_{2.5} National Ambient Air Quality Standards (NAAQS) is inherently more significant to the management of public health and welfare effects than attaining and maintaining prior PM NAAQS addressing larger particles. Therefore, 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}.

The proposed rulemaking would also update § 139.53 (relating to filing monitoring reports) to clarify filing of monitoring reports and amend § 121.1 (relating to definitions) to add two terms and definitions to support the amendments to § 139.12.

The proposed rulemaking is reasonably necessary to attain and maintain the health-based annual and 24-hour PM_{2.5} NAAQS in this Commonwealth.

The proposed rulemaking does not impose new or additional requirements or compliance costs on the owners and operators of existing stationary sources.

The final rulemaking, if published as final-form regulation in the *Pennsylvania Bulletin*, will be submitted to the EPA as a revision to the State Implementation Plan.

Summary of the Proposed Rulemaking

The proposed rulemaking would add definitions for the terms “condensable particulate matter” and “filterable particulate matter” to § 121.1.

Existing § 139.12 would be revised to subsection (a) to clarify that the owner and operator of a stationary source subject to the PM emission standards under §§ 123.11—123.13 (relating to combustion units; incinerators; and processes) is required to test only for filterable PM as provided in paragraphs (1)—(5) of this subsection and not for condensable PM.

Proposed § 139.12(b) would clarify that the owner or operator of a stationary source subject to PM-10 and PM_{2.5} emission limitations shall continue to determine compliance with those limitations by using tests measuring both filterable and condensable PM. This subsection also clarifies that the owner and operator of a stationary source subject to applicability determinations under Chapter 127, Subchapters D and E (relating to prevention of significant deterioration of air quality; and new source review) shall demonstrate compliance for both filterable and condensable PM-10 and PM_{2.5} emissions.

Proposed § 139.12(c) would clarify that compliance with a PM emission limitation issued by the Department prior to January 1, 2011, would not be based on condensable PM unless required by the terms and conditions of a plan approval, operating permit or the State Implementation Plan (SIP).

Proposed § 139.12(d) would clarify that a compliance demonstration required under subsection (b) or (c) must include the measurement and reporting of filterable and condensable PM and that the test methods and procedures must be equivalent to those specified in § 139.4(5).

The proposed rulemaking would amend § 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. This clarification would make the filing of monitoring reports more efficient and timely.

Affected Parties

Under proposed § 139.12(a), the owner and operator of a stationary source subject to PM emission standards set forth in §§ 123.11—123.13 is required to test only for filterable PM as

provided in paragraphs (1)—(5) of this subsection. These owners and operators would not be subject to the filterable and condensable PM testing requirements under proposed subsections (b)—(d).

Under proposed § 139.12(b), the owner or operator of a stationary source subject to emission limitations for PM-10 and PM_{2.5} shall determine compliance with those limitations by using tests measuring both filterable and condensable PM. This subsection also clarifies that the owner and operator of a stationary source subject to applicability determinations required under Chapter 127, Subchapters D and E shall demonstrate compliance for both filterable and condensable PM-10 and PM_{2.5} emissions.

Under proposed § 139.12(c), the owner or operator of a stationary source subject to a PM emission limitation issued by the Department prior to January 1, 2011, would not include condensable PM in the compliance demonstration unless required by the terms of a plan approval, operating permit or the SIP.

Under proposed § 139.12(d), the owner and operator of a stationary source subject to subsection (b) or (c) shall demonstrate compliance through the measurement and reporting of filterable and condensable PM using test methods and procedures equivalent to those specified in § 139.4(5).

Because this proposed rulemaking updates and clarifies the applicability of certain requirements to which owners and operators of certain stationary sources are already subject, the proposed rulemaking does not impose new or additional requirements or compliance costs on the owners or operators of these stationary sources.

Advisory Groups

The Department discussed the draft proposed rulemaking with the Air Quality Technical Advisory Committee (AQTAC, Committee) at its October 20, 2011, meeting. Prior to concurring with the Department's recommendation to present the proposed rulemaking to the Board for consideration, the AQTAC recommended that clarifications be made regarding the definition of "condensable particulate matter" and the effective compliance date for the provisions in § 139.12(b) and (d). The proposed rulemaking has been revised to address the Committee's concerns. The Department also consulted with the Citizens Advisory Council Air Committee on January 31, 2012.

Public Comments and Board Hearings

The Department recommends a 60-day public comment period on the proposed rulemaking and three public hearings in Norristown, Harrisburg and Pittsburgh.