

Regulatory Analysis Form

(Completed by Promulgating Agency)
(All Comments submitted on this regulation will appear on IRRC's website)

INDEPENDENT REGULATORY
REVIEW COMMISSION

2009 APR 24 PM 3:47

RECEIVED
IRRC

(1) Agency:
Environmental Protection.

(2) Agency Number:
Identification Number: 7-477

IRRC Number: 2955

(3) PA Code Cite:
25 Pa. Code Chapters 121 and 139.

(4) Short Title:
Measurement and Reporting Of Condensable Particulate Matter Emissions

(5) Agency Contacts (List Telephone Number and Email Address):
Primary Contact: Michele Tate, 783-8727, mtate@pa.gov
Secondary Contact: Hayley Book, 783-8727, hbook@pa.gov

(6) Type of Rulemaking
(check applicable box):
 Proposed Regulation
 Final Regulation
 Final Omitted Regulation
 Emergency Certification Regulation;
 Certification by the Governor
 Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

The final rulemaking amends Chapter 139 (relating to sampling and testing) to update and clarify the applicability of sampling and testing methods used to demonstrate compliance with certain particulate matter (PM) emission standards and limitations. The change to § 139.12 (relating to emissions of particulate matter) designates the existing language as subsection (a) and explains the process used for determining compliance with filterable PM emission limits. The amendment under § 139.12(b) clarifies when certain owners or operators of a stationary source shall demonstrate compliance with filterable and condensable PM-10 and PM_{2.5} emission standards. The amendment under § 139.12(c) clarifies when compliance with a particulate matter, PM-10 OR PM_{2.5} emission limitation must include condensable particulate matter. The amendment under § 139.12(d) explains the compliance demonstration process for persons subject to either § 139.12(b) or (c). The § 139.12(e) amendment has been added to address IRRC's request for a cross reference to § 139.5 (relating to revisions to the source testing manual and the continuous source monitoring manual). Finally, the change under § 139.53 (relating to filing monitoring reports) clarifies where monitoring reports must be filed. The final rulemaking amends § 121.1 (relating to definitions) to add definitions for the terms "condensable particulate matter" and "filterable particulate matter" to support the amendments to Chapter 139.

If published in the *Pennsylvania Bulletin* as a final rulemaking, the final-form regulation will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the State Implementation Plan (SIP) in 40 CFR 52.2020 (relating to identification of plan).

(8) State the statutory authority for the regulation. Include specific statutory citation.

The final rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth and section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)), which grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation, as well as any deadlines for action.

Yes, companion Federal regulations were set forth at 73 FR 28321 (May 16, 2008) and 75 FR 80118 (December 21, 2010). This final-form rulemaking is not more stringent than the Federal requirements set forth at 73 FR 28321 and 75 FR 80118. The final rulemaking updates § 139.12 to clarify implementation of the revisions promulgated by the 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 EPA's Method 201A improve the measurement of PM to include sampling of emissions of fine particles with diameters less than or equal to 2.5 micrometers in size (PM_{2.5}) in addition to PM-10. The revisions to EPA's Method 202 increase the precision and improve the consistency of the method for measuring condensable PM. The Department incorporates these methods, and revisions to these methods, in the Department's *Source Testing Manual* by reference under § 139.4(5) (relating to references).

(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

PM is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot or smoke, are large or dark enough to be seen with the naked eye; others are so small they can only be detected using an electron microscope. PM includes "inhalable coarse particles," with diameters larger than 2.5 micrometers and smaller than 10 micrometers (PM-10) and "fine particles," with diameters that are 2.5 micrometers and smaller (PM_{2.5}). PM_{2.5} is associated with a number of serious health effects, including premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks and certain cardiovascular problems such as heart attacks and cardiac arrhythmia. See 70 FR 944 (January 5, 2005); 72 FR 20586 (April 25, 2007).

The EPA established the PM National Ambient Air Quality Standard (NAAQS) at 36 FR 8186 on April 30, 1971. The test method specified for determining attainment of the original standards was the high volume sampler, which collects filterable PM up to a nominal size of 25 to 45 micrograms. See 75 FR 80118, 80120 (December 21, 2010).

On September 11, 1971, the Department of Environmental Resources, the predecessor agency to the Department of Environmental Protection (Department), initially promulgated PM emission standards for combustion units, incinerators, and processes under §§ 123.11—123.13 (relating to combustion units; incinerators; and processes). See 1 Pa.B. 1804. Then on March 20, 1972, test methods for determining emissions of PM were promulgated under § 139.12. See 2 Pa.B. 383. These methods included the use

of both dry filters and wet impingers to test for filterable and condensable PM.

On December 27, 1997, the Department deleted the requirement to use wet impingers to test for PM because that provision was more stringent than the applicable Federal requirement and provided little environmental benefit. See 27 Pa.B. 6804. Under this change, the owners and operators of stationary sources subject to the PM requirements of §§ 123.11—123.13 are required to test for compliance with filterable PM emission standards only.

On July 18, 1997, the EPA revised the PM NAAQS to add a new standard for fine particles, using PM_{2.5} as the indicator. The EPA set the health-based (primary) and welfare-based (secondary) PM_{2.5} annual standard at a level of 15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and the 24-hour standard at a level of 65 $\mu\text{g}/\text{m}^3$ at 62 FR 38652. The health-based primary standard is designed to protect human health from elevated levels of PM_{2.5}. The secondary standard is designed to protect against major environmental effects of PM_{2.5} such as visibility impairment, soiling and materials damage.

Subsequently, at 71 FR 61236, the EPA lowered the primary and secondary 24-hour NAAQS for PM_{2.5} to 35 $\mu\text{g}/\text{m}^3$ from 65 $\mu\text{g}/\text{m}^3$ (October 17, 2006). The following counties or portions thereof have been designated by the EPA as nonattainment for the 2006 fine particulate matter 24-hour NAAQS: Allegheny (partial), Armstrong (partial), Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene (partial), Indiana (partial), Lancaster, Lawrence (partial), Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Pittsburgh/Liberty-Clairton (partial), Washington, Westmoreland and York. See 74 FR 58688, 58758 (November 13, 2009).

Section 110 of the CAA (42 U.S.C.A. § 7410) requires State and local air pollution control agencies to develop, and submit to the EPA for approval, SIPs that provide for the attainment, maintenance and enforcement of the NAAQS in each air quality control region (or portion thereof) within each State. 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 primary PM-10 and PM_{2.5} as including both the filterable and condensable fractions of PM. See 40 CFR 51.50 (relating to what definitions apply to this subpart?). Filterable PM consists of those particles that are directly emitted by a source as a solid or liquid at the stack (or similar release conditions) 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. The Commonwealth defines PM-10 and PM_{2.5} in a similar manner as measured by the applicable reference method or equivalent method. See § 121.1.

The 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 at 75 FR 80118. The final amendments to Method 201A add a particle-sizing device to allow for sampling of 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, and revisions to these methods, in the Department's *Source Testing Manual* by reference under § 139.4(5).

<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-50355/274-0300-002.pdf>

The final rulemaking is reasonably necessary to attain and maintain the 1997 annual and 2006 24-hour PM_{2.5} NAAQS and to satisfy related CAA requirements. The final rulemaking accounts for emissions of condensable PM, which contribute to the formation of PM_{2.5} in the atmosphere. Because condensable 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} 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}.

(11) If data is the basis for this regulation, please provide a description of the data, explain in detail how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.

Data is not the basis for this regulation. This final rulemaking is an update and clarification of existing requirements to which source owners and operator are already subject. No data was generated or considered for this regulation.

(12) Describe who and how many people will be adversely affected by the regulation. How are they affected?

The final rulemaking does not impose new or additional requirements or compliance costs on the owners and operators of existing stationary sources. The final rulemaking updates and clarifies the applicability of certain PM testing requirements in Chapter 139 regarding emissions of filterable and condensable PM to which the owners and operators of certain stationary sources are already subject. The final rulemaking updates Chapter 139 to include the revisions to EPA Test Method 201A for measuring filterable PM-10 and Test Method 202 for measuring condensable PM emissions from stationary sources promulgated at 75 FR 80118. The Department incorporates these test methods, and revisions to these methods, in the Department's *Source Testing Manual* by reference at § 139.4(5).

Under § 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 are not subject to the filterable and condensable PM test requirements under proposed subsections (b)—(d).

Under § 139.12(b), the owner or operator of a stationary source that is subject to PM-10 and PM_{2.5} emission limitations shall demonstrate compliance with those limitations by including 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 filterable and condensable PM-10 and PM_{2.5} emissions.

Under § 139.12(c), the owner or operator of a stationary source subject to a PM, PM-10 or PM_{2.5} emission limitation issued by the Department prior to January 1, 2011, will not include condensable PM in the compliance demonstration unless required by the terms of a plan approval, operating permit or the SIP.

Under § 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).

Under § 139.12(e), a cross reference to § 139.5 is provided to clarify how the Department revised the Source Testing Manual.

(13) List the persons, groups or entities that will be required to comply with the regulation. Approximate the number of people who will be required to comply.

Source owners and operators that are required to test for PM to demonstrate compliance with the PM emission standards of §§ 123.11—123.13, with emission limitations for PM-10 and PM_{2.5} or with applicability determinations required under 25 Pa. Code Chapter 127, Subchapters D and E are subject to the PM testing requirements of the final rulemaking. This final rulemaking updates and clarifies the applicability of PM testing requirements to which the owners and operators of these sources are already subject. It does not add new testing requirements. The final rulemaking does not impose new or additional requirements or compliance costs on these owners and operators.

(14) Provide a specific estimate of the costs and/or savings to the **regulated community** associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

The final rulemaking updates and clarifies the applicability of certain testing and reporting requirements to which the owners and operators of certain stationary sources are already subject and does not impose additional compliance costs on these owners and operators.

(15) Provide a specific estimate of the costs and/or savings to **local governments** associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

The final rulemaking does not generally apply to local governments. However, local municipalities which own or operate landfills or municipal waste combustors would already be subject to the final-form requirements with no additional costs or savings.

(16) Provide a specific estimate of the costs and/or savings to **state government** associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.

The final rulemaking does not increase costs to the Commonwealth because it only updates and clarifies the applicability of certain testing and reporting requirements for PM which are required under Federal standards. No new staff resources are necessary to implement the final rulemaking.

(17) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY Year 13/14	FY +1 Year 14/15	FY +2 Year 15/16	FY +3 Year 16/17	FY +4 Year 17/18	FY +5 Year 18/19
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community	0.00	0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Savings	0.00	0.00	0.00	0.00	0.00	0.00
COSTS:	\$	\$	\$	\$	\$	\$
Regulated Community	0.00	0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Costs	0.00	0.00	0.00	0.00	0.00	0.00
REVENUE LOSSES:	\$	\$	\$	\$	\$	\$
Regulated Community	0.00	0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Revenue Losses	0.00	0.00	0.00	0.00	0.00	0.00

(17a) Provide the past three year expenditure history for programs affected by the regulation.

Program	FY-3 (10/11)	FY-2 (11/12)	FY-1 (12/13)	Current FY (13/14)
Environmental Program Management (161-10382)	\$28,881,000	\$27,755,000	\$23,663,000	\$26,297,000
Clean Air Fund Major Emission Facilities (215-20077)	\$20,565,000	\$20,055,000	\$17,545,000	\$21,330,000
Clean Air Fund Mobile and Area Facilities (233-20084)	\$5,620,000	\$2,710,000	\$7,420,000	\$8,610,000

(18) Explain how the benefits of the regulation outweigh any cost and adverse effects.

The final rulemaking clarifies the accounting for emissions of condensable PM, which contribute to the

formation of PM_{2.5} in the atmosphere. Because condensable 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} NAAQS is inherently more significant to the management of public health and welfare 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 final rulemaking is reasonably necessary to attain and maintain the health-based annual and 24-hour PM_{2.5} NAAQS in this Commonwealth.

(19) Describe the communications with and input from the public and any advisory council/group in the development and drafting of the regulation. List the specific persons and/or groups who were involved.

The Department discussed the draft final rulemaking with the Air Quality Technical Advisory Committee (AQTAC) at its February 14, 2013, meeting. AQTAC voted 11-4-2 to concur with the Department's recommendation to forward the final rulemaking to the Board. The Department discussed the draft final rulemaking with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee (Committee) on February 6, 2013. On the recommendation of the Committee, the CAC voted at its February 19, 2013, meeting to concur with the Department's recommendation to forward the final rulemaking to the Board.

(20) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

This final-form rulemaking harmonizes Federal and State requirements. No alternative regulatory provisions were considered.

(21) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

No.

(22) How does this regulation compare with those of other states? How will this affect Pennsylvania's ability to compete with other states?

Because this final rulemaking harmonizes Federal and State requirements and updates and clarifies the applicability of certain testing and reporting requirements to which the owners and operators of certain stationary sources are already subject, the final rulemaking does not impose new or additional requirements or compliance costs on these owners and operators. Therefore, the final rulemaking is not expected to affect Pennsylvania's ability to compete with other states.

(23) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No.

(24) Submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.

Because this final rulemaking updates and clarifies the applicability of certain testing and reporting requirements to which the owners and operators of certain stationary sources are already subject, the final rulemaking does not impose additional reporting or recordkeeping requirements on these owners and operators.

(25) Please list any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, elderly, small businesses, and farmers.

No special provisions are needed.

(26) Include a schedule for review of the regulation including:

- A. The date by which the agency must receive public comments: September 10, 2012
- B. The date or dates on which public meetings or hearings will be held: August 7, 9, and 10, 2012
- C. The expected date of promulgation of the proposed regulation as a final-form regulation: 1st Quarter 2014
- D. The expected effective date of the final-form regulation: Upon final-form publication in the Pennsylvania Bulletin
- E. The date by which compliance with the final-form regulation will be required: Upon final-form publication in the Pennsylvania Bulletin
- F. The date by which required permits, licenses or other approvals must be obtained: N/A

(27) Provide the schedule for continual review of the regulation.

This regulation will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

RECEIVED
IRRC

2014 JAN 24 PM 3:47

**FACE SHEET
FOR FILING DOCUMENTS
WITH THE LEGISLATIVE REFERENCE
BUREAU**

(Pursuant to Commonwealth Documents Law)

DO NOT WRITE IN THIS SPACE

Copy below is hereby approved as to form and legality.
Attorney General

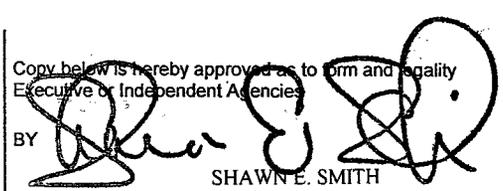
Copy below is hereby certified to be true and
correct copy of a document issued, prescribed or
promulgated by:

Copy below is hereby approved as to form and legality
Executive or Independent Agencies

By: _____
(Deputy Attorney General)

DEPARTMENT OF ENVIRONMENTAL
PROTECTION
ENVIRONMENTAL QUALITY BOARD

BY



SHAWN E. SMITH

JAN 06 2014

DATE OF APPROVAL

(AGENCY)

(Deputy General Counsel)

(~~Chief Counsel - Independent Agency~~)
(Strike inapplicable title)

DATE OF APPROVAL

DOCUMENT/FISCAL NOTE NO. 7-477

DATE OF ADOPTION NOVEMBER 19, 2013

Check if applicable. No Attorney General Approval
or objection within 30 days after submission.

Check if applicable
Copy not approved. Objections attached.

BY 

TITLE E. CHRISTOPHER ABRUZZO
ACTING CHAIRMAN

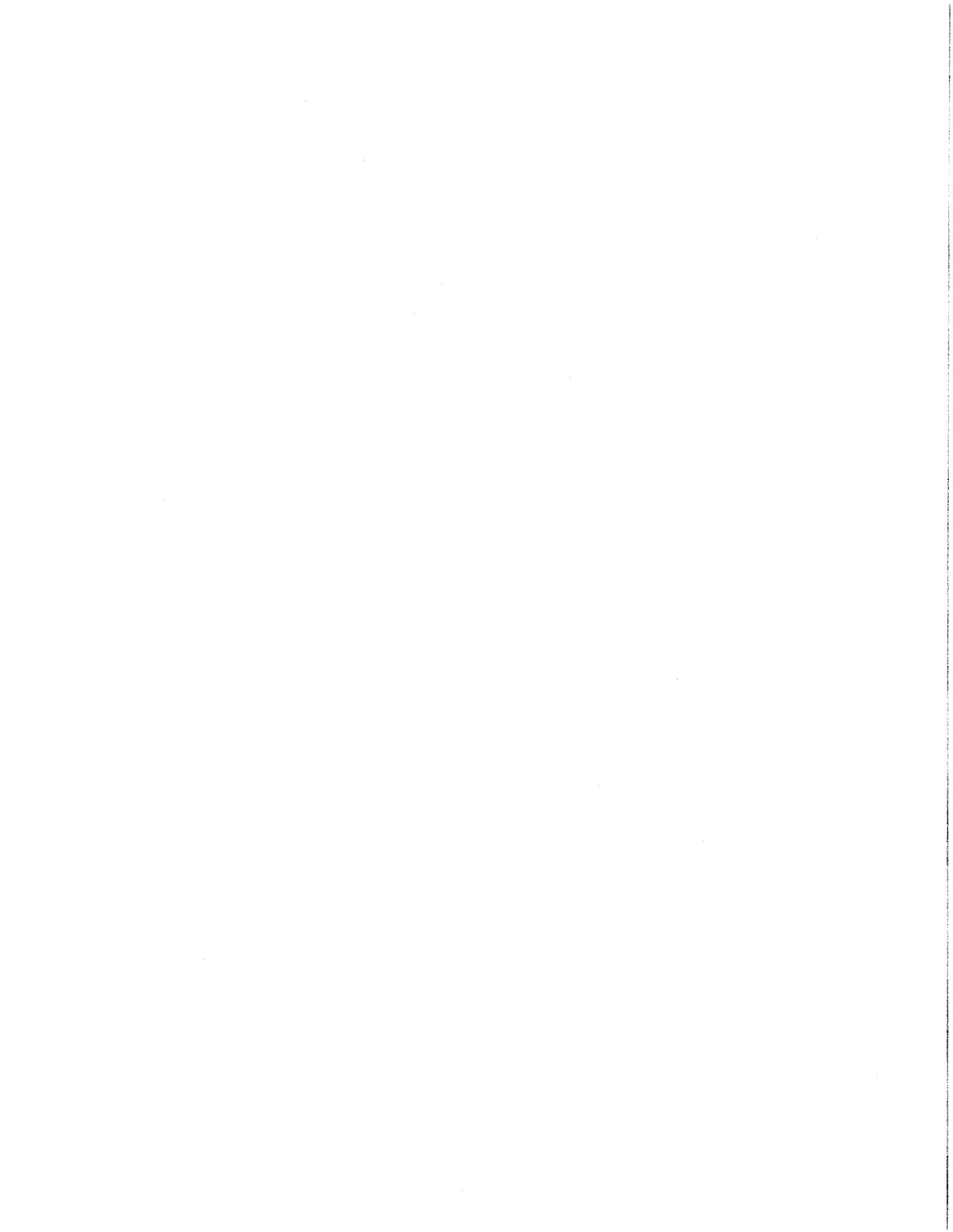
EXECUTIVE OFFICER CHAIRMAN OR SECRETARY

NOTICE OF FINAL RULEMAKING

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD**

Measurement and Reporting of Condensable Particulate Matter Emissions

25 Pa. Code, Chapters 121 and 139



ENVIRONMENTAL QUALITY BOARD
[25 PA CODE CHS. 121 and 139]
Measurement and Reporting of Condensable Particulate Matter Emissions

The Environmental Quality Board (Board) amends Chapters 121 and 139 (relating to general provisions; and sampling and testing) to read as set forth in Annex A. This final-form rulemaking amends Chapter 139 to update and clarify what sampling and testing methods are used to demonstrate compliance with certain particulate matter (PM) emission limitations. The amendment to § 139.12(a) (relating to emissions of particulate matter) explains the process used for determining compliance with filterable PM emission standards set forth in §§ 123.11—123.13 (relating to combustion units; incinerators; and processes). The amendments to §§ 139.12(b) and (c) explain the process used for determining compliance with filterable and condensable PM emission limitations. The amendment to § 139.12(d) explains the compliance demonstration process and clarifies that use of test methods and procedures that are not specified in the Source Testing Manual must be approved in writing by the Department. Subsection (e) adds a cross reference to § 139.5 (relating to revisions to the source testing manual and the continuous source monitoring manual). The amendment to § 139.53 (relating to filing monitoring reports) specifies where monitoring reports must be filed.

In addition to these substantive changes, the final-form rulemaking amends Chapter 121 to add two terms and definitions in § 121.1 (relating to definitions) – “condensable particulate matter” and “filterable particulate matter.”

This order was adopted by the Board at its meeting of November 19, 2013.

A. Effective Date

This final-form rulemaking is effective upon final-form publication in the *Pennsylvania Bulletin*.

B. Contact Persons

For further information, contact Kirit Dalal, Chief, Division of Air Resource Management, P. O. Box 8468, Rachel Carson State Office Building, Harrisburg, PA 17105-8468, (717) 772-3436; or Robert “Bo” Reiley, Assistant Counsel, Bureau of Regulatory Counsel, P. O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the Pennsylvania AT&T Relay Service (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available through the Department of Environmental Protection’s (Department) web site at www.dep.state.pa.us.

C. Statutory Authority

This final-form rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (35 P. S. § 4005), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth, and section

5(a)(8), which grants the Board the authority to adopt rules and regulations designed to implement the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

D. Background and Purpose

PM is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot or smoke, are large or dark enough to be seen with the naked eye; others are so small they can only be detected using an electron microscope. PM includes "inhalable coarse particles," with diameters larger than 2.5 micrometers and smaller than 10 micrometers (PM-10) and "fine particles," with diameters that are 2.5 micrometers and smaller (PM_{2.5}). Epidemiological studies have shown a significant correlation between elevated levels of PM_{2.5} and a number of serious health effects, including premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks and certain cardiovascular problems such as heart attacks and cardiac arrhythmia. See 70 FR 944 (January 5, 2005); 72 FR 20586 (April 25, 2007).

The United States Environmental Protection Agency (EPA) established the PM National Ambient Air Quality Standard (NAAQS) at 36 FR 8186 (April 30, 1971). The test method specified for determining attainment of the original standards was the high volume sampler, which collects filterable PM up to a nominal size of 25 to 45 micrograms (referred to as total suspended particulate or TSP). See 75 FR 80118, 80120 (December 21, 2010).

The Department of Environmental Resources, the predecessor agency to the Department, initially promulgated PM emission standards for combustion units, incinerators, and processes under §§ 123.11—123.13 at 1 Pa.B. 1804 (September 11, 1971). Test methods for determining emissions of PM were promulgated under § 139.12 at 2 Pa.B. 383 (March 20, 1972). These methods included the use of both dry filters and wet impingers to test for filterable and condensable PM.

The Department deleted the requirement to use wet impingers to test for PM at 27 Pa.B. 6804 (December 27, 1997) because that provision was more stringent than the applicable Federal requirement and provided little environmental benefit. Under this change, the owners and operators of existing stationary sources subject to the requirements of §§ 123.11—123.13 are required to test for compliance with filterable PM emission standards only.

The EPA revised the PM NAAQS to add a new standard for fine particles, using PM_{2.5} as the indicator, at 62 FR 38652 (July 18, 1997). The EPA set the health-based (primary) and welfare-based (secondary) PM_{2.5} annual standard at a level of 15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and the 24-hour standard at a level of 65 $\mu\text{g}/\text{m}^3$. The health-based primary standard is designed to protect human health from elevated levels of PM_{2.5}. The secondary standard is designed to protect against major environmental effects of PM_{2.5} such as visibility impairment, soiling and materials damage.

The EPA lowered the primary and secondary 24-hour NAAQS for PM_{2.5} to 35 µg/m³ from 65 µg/m³ at 71 FR 61236 (October 17, 2006). The following counties or portions thereof have been designated by the EPA as nonattainment for the 2006 fine particulate matter 24-hour NAAQS: Allegheny (partial), Armstrong (partial), Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene (partial), Indiana (partial), Lancaster, Lawrence (partial), Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Pittsburgh/Liberty-Clairton (partial), Washington, Westmoreland and York. See 74 FR 58688, 58758 (November 13, 2009).

Section 110 of the CAA (42 U.S.C.A. § 7410) requires State and local air pollution control agencies to develop, and submit to the EPA for approval, State Implementation Plans (SIPs) that provide for the attainment, maintenance and enforcement of the NAAQS in each air quality control region (or portion thereof) within each State. 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 primary PM-10 and PM_{2.5} emissions.

Section 51.50 of 40 CFR (relating to *what definitions apply to this subpart*) defines primary PM-10 and PM_{2.5} as including both the filterable and condensable fractions of PM. Filterable PM consists of those particles that are directly emitted by a source as a solid or liquid at the stack (or similar release conditions) 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. The Commonwealth defines primary PM-10 and PM_{2.5} in a similar manner as measured by the applicable reference method or equivalent method. See § 121.1.

The 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 at 75 FR 80118 (December 21, 2010), which became effective on January 1, 2011. The final amendments to Method 201A add a particle-sizing device to allow for sampling of particulate matter with mean aerodynamic diameters less than or equal to 2.5 micrometers (PM_{2.5} or fine particulate matter). 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 particulate matter. The Department incorporates Methods 201A and 202, and revisions to these methods, by reference in the Department's *Source Testing Manual* under § 139.4(5) (relating to references).

Final-form § 139.12(a) clarifies that the owner and operator subject to the PM emission standards under §§ 123.11—123.13 are only required to test for filterable PM as provided in paragraphs (1)—(5). These owners and operators are not subject to the condensable PM test requirements under final-form subsections (b)—(d).

Final-form § 139.12(b) clarifies that the owner or operator of a stationary source subject to PM-10 and PM_{2.5} emission limitations shall demonstrate compliance with those limitations by including both filterable and condensable PM. This subsection also clarifies that the owner or 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 filterable and condensable PM-10 and PM_{2.5} emissions.

Final-form § 139.12(c) clarifies when compliance with a particulate matter, PM-10 OR PM_{2.5} emission limitation must include condensable particulate matter.

Final-form § 139.12(d) explains the compliance demonstration process for the measurement and reporting of filterable and condensable PM. Subsection (d) also clarifies that use of test methods and procedures that are not specified in the Source Testing Manual requires the Department's prior written approval.

Final-form § 139.12(e) adds a cross reference to § 139.5 (relating to revisions to the source testing manual and the continuous source monitoring manual).

Final-form § 139.53 amends where monitoring reports must be filed.

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) on the final-form rulemaking on February 14, 2013. AQTAC had no comments and concurred with the Department's recommendation to present the final-form rulemaking to the Board for consideration. The Department also consulted with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee (Committee) on February 6, 2013. On the recommendation of the Committee, on February 19, 2013, the CAC concurred with the Department's recommendation to present the final-form rulemaking to the Board.

The final-form rulemaking only updates and clarifies the applicability of certain requirements to which the owners and operators of certain stationary sources are already subject; the final-form rulemaking does not impose new or additional requirements or compliance costs on these owners and operators.

The final-form rulemaking is reasonably necessary to attain and maintain the 1997 annual and 2006 24-hour PM_{2.5} NAAQS and to satisfy related CAA requirements.

The final-form rulemaking will be submitted to the EPA upon final-form publication as a revision to the Commonwealth's SIP codified at 40 CFR 52.2020 (relating to identification of plan).

E. Summary of Final-Form Rulemaking and Changes from Proposed to Final-Form Rulemaking

§ 121.1. Definitions.

Final-form § 121.1 is amended to add definitions for the terms "condensable particulate matter" and "filterable particulate matter" to support the final-form amendments to Chapter 139. These definitions are consistent with the Federal definitions. The Board removed the word "primary"

from the final-form definition of “condensable particulate matter” in response to public comments received. No change was made to the definition of “filterable particulate matter.

§ 139.12. Emissions of particulate matter.

The final-form rulemaking designates the existing language in § 139.12 as subsection (a) and adds subsections (b)—(d) to clarify filterable and condensable PM testing applicability requirements. Subsection (a) clarifies that the listed test procedures are to determine emissions of filterable PM only and not condensable PM from affected stationary sources for compliance with the PM emission standards set forth in §§ 123.11—123.13.

Subsection (b) provides that the owner or operator of a stationary source subject to emission limitations for PM-10 and PM_{2.5} or 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.

Subsection (c) provides that compliance with a PM, PM-10 or PM_{2.5} 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 SIP in 40 CFR 52.2020 (relating to identification of plan).

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

Subsection (e) provides a cross reference to § 139.5 to clarify how the Department revises the *Source Testing Manual*.

§ 139.53. Filing monitoring reports.

The final-form rulemaking amends § 139.53 to specify that the periodic emissions monitoring test reports shall be submitted to the applicable Regional Air Program Manager instead of the Regional Air Pollution Control Engineer and a copy of the report shall be submitted to the Chief of the Division of Source Testing and Monitoring. This change makes the filing of monitoring reports more efficient and timely.

F. Summary of Major Comments and Responses

Three commentators requested changes to the first sentence of § 139.12(c), to include PM₁₀ and PM_{2.5} in addition to particulate matter. The commentators explained this would clarify that condensable particulate matter is not included in determining compliance with emission limits for PM-10 and PM_{2.5} that were established prior to January 1, 2011, unless required by a plan approval, operating permit, or the State Implementation Plan codified in 40 CFR § 52.2020 (relating to identification of plan). IRRC recommended that the Board either add this clarification or explain why it is unnecessary. The Board agrees. Final-form § 139.12(c) states

that compliance with a particulate matter, PM-10 or PM_{2.5} emission limitation issued by the Department prior to January 1, 2011, will not be based on condensable particulate matter unless required under the terms and conditions of a plan approval, operating permit or the SIP.

A commentator requested that the phrase "or an applicability determination made" be added to § 139.12(c) because the EPA intended for condensable emissions to be considered prospectively for both emission limitation compliance demonstrations and major NSR program applicability determinations. The Board disagrees that the additional language is necessary. The final-form rulemaking clarifies the filterable and condensable PM testing applicability requirements adequately. Limitations regarding review of applicability determinations made before January 1, 2011, remain as established in the EPA's final rule for *Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5})*, 73 FR 28321 (May 16, 2008), and the EPA's final rule for *Methods for Measurement of Filterable PM₁₀ and PM_{2.5} and Measurement of Condensable PM Emissions From Stationary Sources*, 75 FR 80118 (December 21, 2010).

A commentator requested that § 139.12(c) be revised to expressly indicate that the Department will specify when an emission limitation for PM, PM₁₀, or PM_{2.5} is based on condensable emissions in addition to filterable emissions. The commentator asserts the regulated community understands a generic "particulate matter" emission limitation to mean filterable only, and that limitations expressed without specific reference to condensable emissions should be interpreted as filterable only. The Board has revised final-form § 139.12(c) as explained above. The Board disagrees with adding the commentator's other requested language because the provision set forth in final-form § 139.13(c) clearly states that compliance with a particulate matter emission limitation issued by the Department prior to January 1, 2011, will not be based on condensable particulate matter unless required under the terms and conditions of a plan approval, operating permit or the SIP. Compliance with a particulate matter emission limitation issued by the Department on and after January 1, 2011, will include condensable particulate matter as specified in § 139.12(b) and (d).

A commentator recommended revising § 139.12(b) to clarify that the applicability of the substantive requirements in subsection (b) is limited by subsections (a) and (c), by adding the phrase "except as provided in (a) and (c)" at the end of the last sentence in § 139.12(b). The Board's response is that the requirements of subsection (b) are not limited by subsections (a) or (c). The owner and operator of a regulated stationary source are required to meet the Federal requirements for particulate matter standards. The changes to the regulatory language and exceptions requested by the commentator would result in a regulation that does not comply with Federal requirements.

A commentator recommended removing the first sentence of § 139.12(d), contending that this sentence is redundant with § 139.12(b) and inconsistent with § 139.12(c). The Board disagrees that § 139.12(d) is redundant with § 139.12(b). Section 139.12(b) requires that the owner or operator of a unit subject to emission limitations for PM-10 and PM_{2.5} demonstrate compliance for filterable and condensable PM₁₀ and PM_{2.5} emissions. The first sentence in § 139.12(d) requires the demonstration of compliance specified in § 139.12(b) to be made by measurement and reporting. The second sentence in § 139.12(d) follows by requiring that the measurement and reporting methods used are equivalent to the test methods and procedures specified in § 139.4(5). Further, the Board disagrees that § 139.12(d) conflicts with § 139.12(b). Testing of

filterable and condensable emissions is required regardless of whether the condensable portion will be used in the compliance demonstration. A compliance demonstration under § 139.12(c) shall include the measurement and reporting of both filterable and condensable particulate matter, regardless of whether the condensable portion is subject to compliance demonstration under subsection (c).

A commentator requested that the Board adopt EPA Conditional Test Method 039 as an equivalent alternative to EPA Test Methods 201A and 202. IRRC asked whether EPA Conditional Test Method 039 is equivalent to the methods specified in the *Source Testing Manual*. The Board's response is that the inclusion of a Federal Conditional Test Method (CTM) in the final-form rulemaking, that may be subject to change or may never be finalized, would be improper. The owner or operator of an affected source may request the Department's approval to use CTM 039 as an alternative method on a case-by-case basis in accordance with § 139.12(d), and the *Source Testing Manual* referenced in § 139.4(5). Condensable particulate matter is defined in § 1.3.1.3 (relating to definitions) of the *Source Testing Manual* as "The sum of the condensable organic particulate and the condensable inorganic particulate as determined by EPA Method 202 or an equivalent method."

A commentator recommended that the Board confirm that this rulemaking action will not affect the annual inventory required by § 135.3 (relating to reporting). The commentator asserts that operators are not currently required to include condensable emissions in the emission inventory. The Board agrees that this final-form rulemaking does not affect annual emission statement reporting requirements under § 135.21 (relating to emission statements) or annual emission inventory reporting requirements under § 135.3. Owners and operators of air contamination sources subject to those reporting requirements are presently required to report emissions of PM-10 and PM_{2.5} in accordance with the Department's *Instructions for Completing the Annual Emission Statement Reporting Forms*. The Board disagrees with the commentator's assertion that operators are not currently required to include condensable emissions in the emission inventory. Condensable particulate emissions are a component of PM_{2.5} and PM-10.

A commentator recommended that the Board clarify and address whether condensable emissions will be considered a regulated pollutant for purposes of calculating the Title V annual emission fees required by § 127.705 (relating to emission fees). IRRC noted it would review the Board's response to this comment as part of its determination of whether the final-form regulation is in the public interest. The Board responds that condensable particulate matter emissions are already regulated pollutants and required to be included in the accounting of a facility's emissions of particulate matter and reported for the purposes of calculating the Title V annual emission fees required by § 127.705. The final-form rulemaking does not add a separate fee for condensable particulate matter emissions.

IRRC commented that § 139.12(d) is not clear regarding who makes the determination that a test method or procedure is equivalent to those specified in the *Source Testing Manual*. IRRC recommended that the subsection be revised to clarify who makes the determination. The Board agreed and clarified that an owner or operator of a facility who wishes to use an alternative test method or procedure in place of a Commonwealth-specific test method or procedure specified in

the *Source Testing Manual* must obtain the Department's prior written approval. In such cases, the Department would review the documentation provided by the owner or operator that demonstrates that the alternative test method or procedure provides results that are equivalent and would issue a written determination to the owner or operator. However, the EPA would review the documentation and make the determination of whether an alternative test method or procedure is equivalent to a test requirement required under a Federal law or regulation.

IRRC requested that the Board consider cross referencing § 139.5 (relating to revisions to the source testing manual and continuous source monitoring manual) to clarify how the Department revises the *Source Testing Manual*. In response to IRRC's request, the Board added § 139.12(e) in the final-form rulemaking to cross reference § 139.5 as follows: The Source Testing Manual referenced in § 139.4(5) is subject to revision in accordance with the procedures described in § 139.5 (relating to revisions to the source testing manual and continuous monitoring manual).

G. Benefits, Costs and Compliance

Benefits

The final-form rulemaking accounts for emissions of condensable PM, which contribute to the formation of PM_{2.5} in the atmosphere. Because condensable 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} 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}.

Compliance Costs

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

Compliance Assistance Plan

The regulated community is comprised of companies with sophisticated and experienced environmental staff. The owners and operators of these facilities have prior experience with regulatory programs and are technically capable of implementing the amended EPA test methods. The Department will post information on its web site to assist the public in understanding the requirements placed on the owners and operators of subject facilities.

Paperwork Requirements

Because this final-form rulemaking updates and clarifies the applicability of certain requirements to which the owners and operators of certain stationary sources are already subject, the final-form rulemaking does not impose additional paperwork requirements on the owners and operators of these existing stationary sources.

H. Pollution Prevention

The Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance. The major pollution prevention mechanism in the final-form rulemaking is to ensure a comprehensive, inclusive and accurate approach to measuring condensable PM emissions. Improved data will support the 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}.

I. Sunset Review

This final-form rulemaking will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

J. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on June 22, 2012, the Department submitted a copy of the notice of proposed rulemaking, published at 42 Pa.B. 4363, to IRRC and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the House and Senate Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC, the House and Senate Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P. S. § 745.5a(j.2)), on _____, the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on _____, and approved the final-form rulemaking.

K. Findings of the Board

The Board finds that:

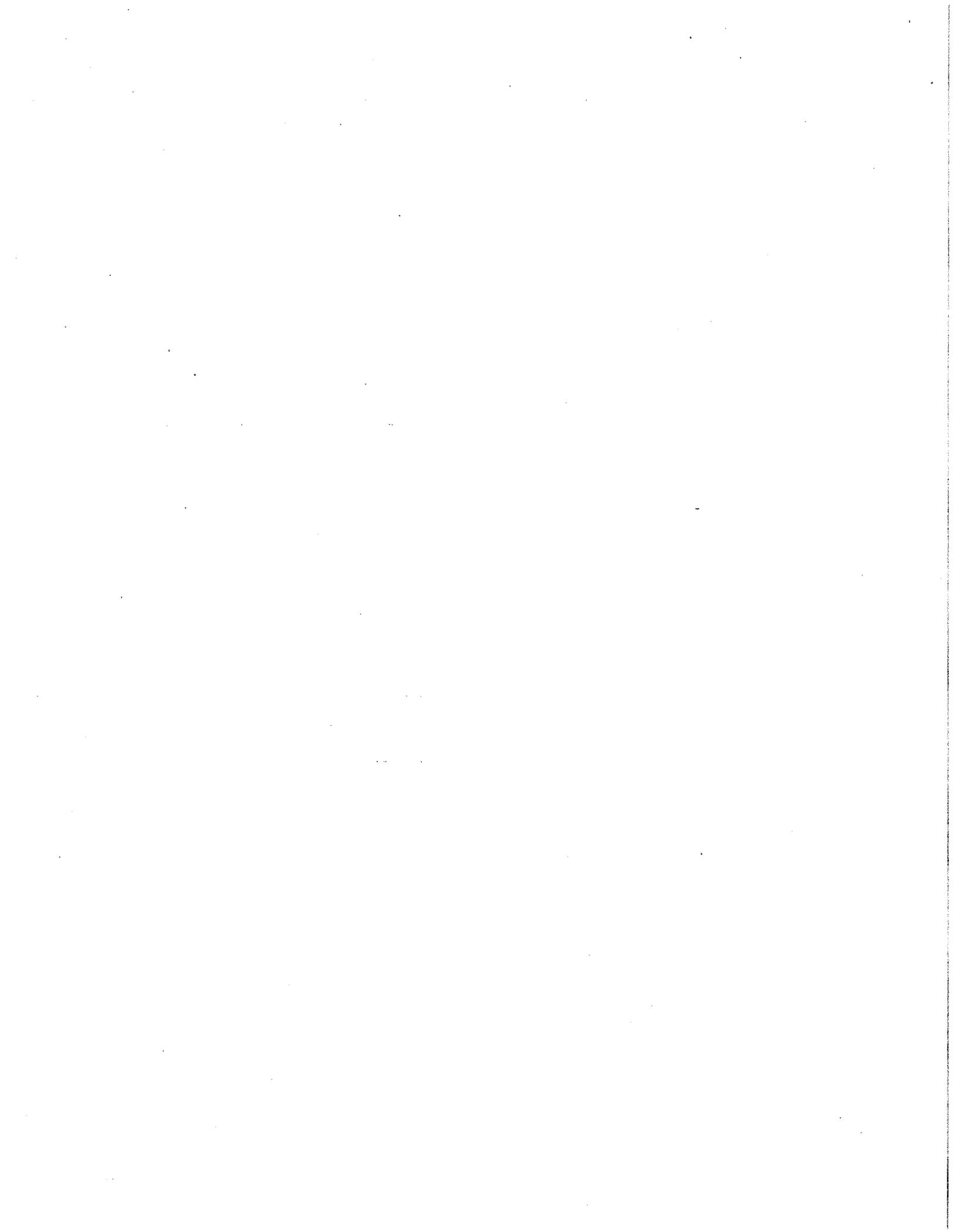
- (1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1201 and 1202) and regulations promulgated thereunder, 1 Pa. Code §§ 7.1 and 7.2.
- (2) At least a 60-day public comment period was provided as required by law and the comments were considered.
- (3) This final-form rulemaking does not enlarge the purpose of the proposed rulemaking published at 42 Pa.B. 4363.
- (4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this preamble.
- (5) These regulations are necessary and appropriate to implement provisions of the CAA.

L. Order of the Board

The Board, acting under the authorizing statutes, orders that:

- (a) The regulations of the Department, 25 Pa. Code Chapters 121 and 139, are amended by amending §§ 121.1, 139.12 and 139.53 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.
- (b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.
- (c) The Chairperson of the Board shall submit this order and Annex A to IRRC and the Committees as required by the Regulatory Review Act.
- (d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau as required by law.
- (e) This final-form rulemaking will be submitted to the EPA as an amendment to the Pennsylvania SIP.
- (f) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

E. Christopher Abruzzo
Chairperson



Final-form Rulemaking
Annex A
TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Subpart C. PROTECTION OF NATURAL RESOURCES
ARTICLE III. AIR RESOURCES
CHAPTER 121. GENERAL PROVISIONS

§ 121.1. Definitions.

The definitions in section 3 of the act (35 P. S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

Condensable particulate matter—Material that is vapor phase at stack conditions but which condenses or reacts, or both, upon cooling and dilution in the ambient air to form solid or liquid particulate matter immediately after discharge from the stack. All condensable particulate matter, if present from a source, is typically in the PM_{2.5} size fraction and therefore all of it is a component of both [primary] PM_{2.5} and [primary] PM-10.

* * * * *

Filterable particulate matter—Particles directly emitted by a source as a solid or liquid at the stack, or similar release conditions, and captured on the filter of a stack test train.

* * * * *

CHAPTER 139. SAMPLING AND TESTING

Subchapter A. SAMPLING AND TESTING METHODS AND PROCEDURES

STATIONARY SOURCES

§ 139.12. Emissions of particulate matter.

(a) Tests for determining emissions of filterable particulate matter from stationary sources to demonstrate compliance with the particulate matter emission standards in §§ 123.11—123.13 (relating to combustion units; incinerators; and processes) shall conform with the following:

(1) Test methods for particulate matter emissions shall include dry filters and provide for at least a 95% collection efficiency of particulate matter.

* * * * *

(5) Results shall be calculated based upon sample train component weights specified in § 139.4(5). Results shall be reported as pounds of particulate matter per hour and in accordance with the units specified in §§ 123.11—123.13 [(relating to particulate matter emissions)].

(b) The owner or operator of a stationary source subject to emission limitations for PM-10 and PM_{2.5} or to applicability determinations required under Chapter 127, Subchapters D and E (relating to prevention of significant deterioration of air quality; and new source review) shall demonstrate compliance for filterable and condensable PM-10 and PM_{2.5} emissions.

(c) Compliance with a particulate matter, PM-10 OR PM_{2.5} emission limitation issued by the Department prior to January 1, 2011, will not be based on condensable particulate matter unless required under the terms and conditions of a plan approval, operating permit or the State Implementation Plan codified in 40 CFR 52.2020 (relating to identification of plan).

(d) A compliance demonstration required under subsection (b) or (c) must include the measurement and reporting of filterable and condensable particulate matter. Test methods and procedures USED TO DETERMINE COMPLIANCE must be equivalent to those specified in § 139.4(5). AN OWNER OR OPERATOR MUST OBTAIN THE DEPARTMENT'S PRIOR WRITTEN APPROVAL FOR THE USE OF METHODS AND PROCEDURES THAT ARE NOT PRESCRIBED IN THE SOURCE TESTING MANUAL.

(e) THE SOURCE TEST MANUAL REFERENCED IN § 139.4(5) IS SUBJECT TO REVISION IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN § 139.5 (RELATING TO REVISIONS TO THE SOURCE TESTING MANUAL AND CONTINUOUS MONITORING MANUAL).

Subchapter B. MONITORING DUTIES OF CERTAIN SOURCES

GENERAL

§ 139.53. Filing monitoring reports.

(a) Persons responsible for the operation of sources subject to monitoring requirements established by order, by condition of plan approval or permit or under this subchapter, shall submit periodic reports of the results of tests, samples or observations conducted, obtained or made in accordance with the methods or techniques referenced in § 139.52 (relating to monitoring methods and techniques). The reports shall be:

* * * * *

(4) Submitted to the Regional Air [Pollution Control Engineer] Program Manager for the region of the Department in which the source is located and a copy to the Chief of the Division of Source Testing and Monitoring.

* * * * *



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

**Measurement and Reporting of
Condensable Particulate Matter Emissions
25 Pa. Code Chapters 121 and 139**

Environmental Quality Board Regulation #7-477
Independent Regulatory Review Commission #2955

Comment and Response Document

Bureau of Air Quality

Measurement and Reporting of Condensable Particulate Matter Emissions

The Environmental Quality Board (Board) published notice of the public comment period and public hearings for the Measurement and Reporting of Condensable Particulate Matter Emissions proposed rulemaking in the *Pennsylvania Bulletin* on July 7, 2012 (42 Pa.B. 4363). The Board held three public hearings on the proposed rulemaking at the following locations:

- August 7, 2012 Department of Environmental Protection
Southwest Regional Office
Monongahela Conference Room
400 Waterfront Drive
Pittsburgh, PA 15222-4745
- August 9, 2012 Department of Environmental Protection
Southeast Regional Office
Schuylkill River Conference Room
2 East Main Street
Norristown, PA 19401
- August 10, 2012 Department of Environmental Protection
Rachel Carson State Office Building
Conference Room 105
400 Market Street
Harrisburg, PA 17105

The 66-day public comment period for the proposed rulemaking closed on September 10, 2012. Testimony received during the public hearings and written comments received during the public comment period are summarized in this comment and response document. The Independent Regulatory Review Commission (IRRC) reviewed the public comments and also submitted comments to the Board. The identity of each commentator making the comment is indicated by the assigned numbers in parentheses after each comment.

ID	Name/Address	Submitted one page Summary for distribution to EQB	Provided Testimony
1.	John A. Maitland Eastern U.S. Environmental, Health, and Safety Manager Graymont (PA) Inc. 194 Match Factory Place Bellefonte, PA 16823		
2.	David Gibson Plant Manager Ontelaunee Power Operating Co., LLC. 5115 Pottsville Pike Reading, PA 19605	✓	
3.	Douglas L. Biden President Electric Power Generation Association 800 North Third Street, Ste 303 Harrisburg, PA 17102	✓	
4.	Peter T. Kimmel V.P. Operations Armstrong Cement and Supply Corp. 100 Clearfield Road Cabot, PA 16023-9521	✓	
5.	David Sumner Executive Director Independent Regulatory Review Commission (IRRC) 333 Market Street, 14 th Floor Harrisburg, PA 17101		

General Support

1. Comment: A commentator expresses general support for the proposed rulemaking to clarify requirements for measurement and reporting of condensable particulate matter (PM) emissions. (4)

Response: The Department of Environmental Protection (Department) appreciates the commentator's expression of support.

General Opposition, Concerns, and Suggestions

2. Comment: A commentator recommends deleting the word "primary" from the definition of "condensable particulate matter" because it is not used elsewhere in the regulation and could cause uncertainty. IRRC recommends either removing the word "primary" from the definition of "condensable particulate matter" or explaining why it is clear and necessary to that definition. (3, 5)

Response: The Department agrees with the commentator and IRRC and has removed the word "primary" from the definition. The final-form definition reads as follows:

Condensable particulate matter—Material that is vapor phase at stack conditions but which condenses or reacts, or both, upon cooling and dilution in the ambient air to form solid or liquid particulate matter immediately after discharge from the stack. All condensable particulate matter, if present from a source, is typically in the PM_{2.5} size fraction and therefore all of it is a component of both PM_{2.5} and PM-10.

3. Comment: Three commentators request changes to the first sentence of § 139.12(c), to include PM10 and PM_{2.5} in addition to particulate matter, as follows:

"Compliance with a particulate matter (PM), PM10, or PM_{2.5} emission limitation..."; or, "Compliance with a particulate matter, PM10, or PM_{2.5} emission limitation..."

The commentators explain this would clarify that condensable particulate matter is not included in determining compliance with emission limits for PM-10 and PM_{2.5} that were established prior to January 1, 2011, unless required by a plan approval, operating permit, or the State Implementation Plan codified in 40 CFR § 52.2020 (relating to identification of plan). The commentators assert this would make the regulation more consistent with corresponding Federal regulations at 40 CFR § 51.166(b)(49)(i)(d)(vi) (*sic*) and 40 CFR § 52.21(b)(50)(i)(d)(vi) (*sic*), and note that some existing particulate matter emission limitations established in regulations, Plan Approvals and Permits refer to particulate matter or PM-10 and do not distinguish between filterable and condensable PM. IRRC recommends that the EQB either add this clarification or explain why it is unnecessary. (2, 3, 4, 5)

Response: The Department agrees with the commentators' suggestion and has made this change. The final-form revision to 25 Pa. Code § 139.12(c) reads as follows:

(c) Compliance with a particulate matter, PM-10 or PM_{2.5} emission limitation issued by the Department prior to January 1, 2011, will not be based on condensable particulate matter unless required under the terms and conditions of a plan approval, operating permit or the State Implementation Plan codified in 40 CFR 52.2020 (relating to identification of plan).

4. Comment: In addition to the requested change described under Comment 3, above, one commentator requests that the phrase "or an applicability determination made," be added to § 139.12(c) because the EPA intended for condensable emissions to be considered prospectively for both emission limitation compliance demonstrations and major NSR program applicability determinations. The Department included the January 1, 2011, date based on the EPA's transition period for implementation of the federal NSR program for PM_{2.5}. (See 75 Fed. Reg. 80118, 80124, December 21, 2010). When implementing the NSR program, the EPA established a transition period partly in response to operator concerns about retroactive enforcement, and explained that it would not revisit applicability determinations made prior to January 1, 2011, unless an Implementation Plan or Permit clearly required otherwise. (See 73 Fed. Reg. 28321, 28335, May 16, 2008). (4)

Response: The Department disagrees that the additional language is necessary. The final-form rulemaking clarifies the filterable and condensable PM testing applicability requirements adequately. Limitations regarding review of applicability determinations made before January 1, 2011, remain as established in the United States Environmental Protection Agency's (EPA) final rule for *Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5})*, 73 FR 28321 (May 16, 2008), and the EPA's final rule for *Methods for Measurement of Filterable PM₁₀ and PM_{2.5} and Measurement of Condensable PM Emissions From Stationary Sources*, 75 FR 80118 (December 21, 2010).

5. Comment: In addition to the requested changes described under Comments 3 and 4, one commentator requests revision of proposed 25 *Pa. Code* § 139.12(c) to expressly indicate that the Department will specify when an emission limitation for PM, PM₁₀, or PM_{2.5} is based on condensable emissions in addition to filterable emissions. The commentator asserts the regulated community understands a generic "particulate matter" emission limitation to mean filterable only, and that limitations expressed without specific reference to condensable emissions should be interpreted as filterable only. The commentator proposes this language:

Compliance with a particulate matter **(PM), PM₁₀, or PM_{2.5}** emission limitation issued by the Department **or an applicability determination made** prior to January 1, 2011, will not be based on condensable particulate matter unless **expressly** required under the terms and conditions of a plan approval, operating permit or the State Implementation Plan codified in 40 CFR 52.2020 (relating to identification of plan). **PM, PM₁₀, and PM_{2.5} emission limitations issued by the Department on or after January 1, 2011 shall specifically identify whether condensable emissions are to be included.** (4)

Response:

The Department has revised final-form 25 Pa. Code § 139.12(c) as explained in the response to Comment No. 3. The Department disagrees with adding the commentator's other requested language because the language set forth in final-form 25 Pa. Code § 139.12(c) clearly states that compliance with a particulate matter, PM-10 or PM_{2.5} emission limitation issued by the Department prior to January 1, 2011, will not be based on condensable particulate matter unless required under the terms and conditions of a plan approval, operating permit or the State Implementation Plan codified in 40 CFR 52.2020 (relating to identification of plan). Compliance with a particulate matter emission limitation issued by the Department on and after January 1, 2011, will include condensable particulate matter as specified in 25 Pa. Code § 139.12(b) and (d).

6. Comment: A commentator recommends revising 25 Pa. Code § 139.12(b) to clarify that the applicability of the substantive requirements in subsection (b) is limited by subsections (a) and (c), by adding the phrase "except as provided in (a) and (c)" at the end of the last sentence in 25 Pa. Code § 139.12(b). (4)

Response: The Department disagrees. The requirements of subsection (b) are not limited by subsections (a) or (c). The owner and operator of a regulated stationary source are required to meet the Federal requirements for particulate matter standards. The changes to the regulatory language and exceptions requested by the commentator would result in a regulation that does not comply with Federal requirements.

7. Comment: A commentator recommends removing the first sentence of 25 Pa. Code § 139.12(d), contending that this sentence is redundant with 25 Pa. Code § 139.12(b) and inconsistent with 25 Pa. Code § 139.12(c). (4)

Response: The Department disagrees that 25 Pa. Code § 139.12(d) is redundant with 25 Pa. Code § 139.12(b). Section 139.12(b) requires that the owner or operator of a unit subject to emission limitations for PM-10 and PM_{2.5} demonstrate compliance for filterable and condensable PM10 and PM_{2.5} emissions. The first sentence in 25 Pa. Code § 139.12(d) requires the demonstration of compliance specified in 25 Pa. Code § 139.12(b) to be made by measurement and reporting. The second sentence in 25 Pa. Code § 139.12(b) follows by requiring that the measurement and reporting methods used are equivalent to the test methods and procedures specified in 25 Pa. Code § 139.4(5). The Department disagrees that 25 Pa. Code § 139.12(d) conflicts with 25 Pa. Code § 139.12(b). The Department requires that testing include filterable and condensable emissions regardless of whether the condensable portion will be used in the compliance demonstration. A compliance demonstration under 25 Pa. Code § 139.12(c) shall include the measurement and reporting of both filterable and condensable particulate matter, regardless of whether the condensable portion is subject to compliance demonstration under subsection (c).

8. Comment: A commentator requests that the Board adopt EPA Conditional Test Method 039 as an equivalent alternative to EPA Test Methods 201A and 202. IRRC asks whether EPA Conditional Test Method 039 is equivalent to the methods specified in the *Source Testing Manual*. (1, 5)

Response: The Department disagrees with the suggestion of including a Federal Conditional Test Method (CTM) in the final-form rulemaking. A CTM is an analytical method conditionally approved by the EPA to be applicable to measurement of a pollutant for a specific category of stationary sources. A CTM is potentially subject to change based on EPA review of additional information when the CTM undergoes the Federal rulemaking process to be adopted as a Federal Reference Test Method (RTM). The Department will therefore not include a CTM in the final-form rulemaking that may change upon adoption as a Federal RTM, may not be approved by EPA for certain source categories, or may never be adopted as a final RTM. The owner or operator of an affected source may request the Department's approval to use CTM 039 as an alternative to Method 201A or 202 on a case-by-case basis in accordance with 25 Pa. Code § 139.12(d), and by 25 Pa. Code § 139.12(d)'s reference to 25 Pa. Code § 139.4(5) (relating to references), with the Department's *Source Testing Manual* (Revision 3.3) and *Technical Guidance Document* (TGD) Number 274-0300-002. Condensable particulate matter is defined in § 1.3.1.3 (relating to definitions) of the *Source Testing Manual* as "The sum of the condensable organic particulate and the condensable inorganic particulate as determined by EPA Method 202 or an equivalent method."

9. Comment: One commentator recommended that the Board confirm that this rulemaking action will not affect the annual inventory required by 25 Pa. Code § 135.3. The commentator asserts that operators are not currently required to include condensable emissions in the emission inventory. (4)

Response: The Department agrees that this final-form rulemaking does not affect annual emission statement reporting requirements under 25 Pa. Code § 135.21 (relating to emission statements) or annual emission inventory reporting requirements under § 135.3 (relating to reporting). Owners and operators of air contamination sources subject to those reporting requirements are presently required to report emissions of PM-10 and PM_{2.5} in accordance with the Department's *Instructions for Completing the Annual Emission Statement Reporting Forms*. However, the Department disagrees with the commentator's assertion that operators are not currently required to include condensable emissions in the emission inventory. It is also important to note that under existing regulations the owners and operators of Title V facilities must also pay emission fees for condensable emissions in accordance with 25 Pa. Code § 127.705 (relating to emission fees). As discussed in the response to Comment # 2, condensable particulate emissions are a component of PM_{2.5} and PM-10.

10. Comment: A commentator recommended that the Board clarify and address whether condensable emissions will be considered a regulated pollutant for purposes of calculating the Title V annual emission fees required by 25 Pa. Code § 127.705 (relating to emission fees). IRRC will review the EQB's response to this comment as part of its determination of whether the final-form regulation is in the public interest. (4, 5)

Response: Condensable particulate matter emissions are already regulated pollutants and required to be included in the accounting of a facility's emissions of particulate matter and reported for the purposes of calculating the Title V annual emission fees required by 25 Pa. Code § 127.705. Title V emission fees are already being paid to the Department. This final-form rulemaking does not add a separate fee for condensable particulate matter emissions or increase the Title V annual emission fee for regulated pollutants required by 25 Pa. Code § 127.705.

11. Comment: IRRC commented that 25 Pa. Code § 139.12(d) is not clear regarding who makes the determination that a test method or procedure is equivalent to those specified in the *Source Testing Manual*. IRRC recommended that the subsection be revised to clarify who makes the determination. (5)

Response: To address IRRC's concern, 25 Pa. Code § 139.12(d) has been revised in the final-form regulation to expressly state that the Department's prior written approval is required for the use of a different test method or procedure as an alternative to a method or procedure prescribed in the Source Test Manual.

12. Comment: IRRC requests EQB to consider cross referencing 25 Pa. Code § 139.5 (relating to revisions to the source testing manual and continuous source monitoring manual) to clarify how the Department revises the *Source Testing Manual*. (5)

Response: The Department considered IRRC's request to cross-reference 25 Pa. Code § 139.5 in 25 Pa. Code § 139.12(d) to clarify how the *Source Testing Manual* is revised. To this end, § 139.12(e) has been added in the final-form regulation to cross reference 25 Pa. Code § 139.5 as follows: The Source Testing Manual referenced in § 139.4(5) is subject to revision in accordance with the procedures described in § 139.5 (relating to revisions to the source testing manual and continuous monitoring manual).



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

POLICY OFFICE

January 24, 2014

David Sumner
Executive Director
Independent Regulatory Review Commission
14th Floor
333 Market Street
Harrisburg, PA 17120

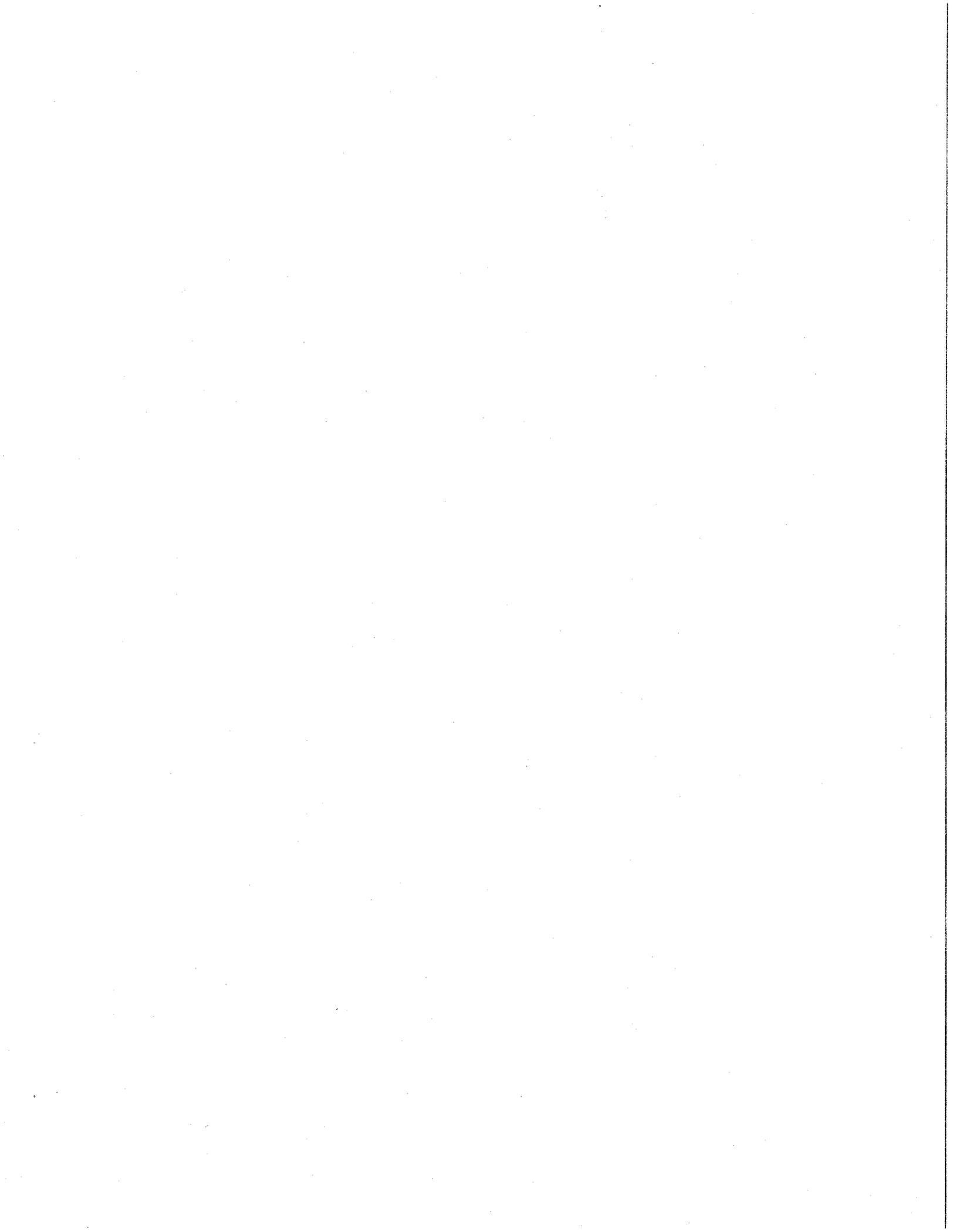
Re: Final Rulemaking: Measurement and Reporting of Condensable Particulate Matter Emissions (#7-477)

Dear Mr. Sumner:

Pursuant to Section 5.1(a) of the Regulatory Review Act, please find enclosed the Measurement and Reporting of Condensable Particulate Matter Emissions final rulemaking for review and comment by the Independent Regulatory Review Commission (IRRC). The Environmental Quality Board (EQB) adopted the final rulemaking at its November 19, 2013, meeting.

The enclosed final rulemaking includes amendments to 25 *Pa Code* Chapters 121 and 139 in order to update and clarify certain testing and reporting requirements associated with compliance demonstrations for filterable and condensable particulate matter (PM) emissions to which affected stationary sources are already subject. The final-form rulemaking clarifies that the owner and operator of a stationary source subject to the PM emission standards under 25 *Pa Code* §§ 123.11—123.13 are only required to test for and report emissions of filterable PM. These owners and operators are not required to test for or report condensable PM. The final-form rulemaking also clarifies that the owner and operator of a stationary source subject to PM-10 and PM2.5 emission limitations or to applicability determinations under Chapter 127, Subchapters D and E shall test for and report PM emissions that include both filterable and condensable PM. Source types affected by the rulemaking include power plants, industrial boilers, and other industrial burning or combustion-related activities. The amendments will improve regional consistency for permitting and enforcement by clarifying which affected owners and operators must test for and report emissions of both filterable and condensable PM-10 and PM2.5 and those that must test for and report only emissions of filterable PM.

The final-form regulations will be submitted to the United States Environmental Protection Agency as a revision to the State Implementation Plan (SIP) upon final-form publication in the *Pennsylvania Bulletin* and are reasonably necessary to attain and maintain the 24-hour and annual PM2.5 National Ambient Air Quality Standard (NAAQS) in the nonattainment areas. The proposed rulemaking was adopted by the EQB on April 17, 2012, and was published in the *Pennsylvania Bulletin* for public comment on July 7, 2012, where notice of a 66-day public comment period was advertised. The Board received comments from five commentators, including Graymont (PA) Inc., Ontelaunee Power Operating Co., LLC, Electric Power



Generation Association, Armstrong Cement and Supply Corp, and the Independent Regulatory Review Commission. All comments, responses and changes incorporated into the final-form rulemaking are elaborated upon in the Comment and Response Document that accompanies the final rulemaking.

The Department of Environmental Protection (DEP) presented the draft final-form rulemaking to the Air Quality Technical Advisory Committee (AQTAC) on February 14, 2013. AQTAC had no comments and voted by majority to concur with DEP's recommendation to advance the final-form rulemaking to the EQB for consideration. The draft final-form rulemaking was also discussed with the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight Committee on February 6, 2013. On the recommendation of the committee, on February 19, 2013, the CAC concurred with DEP's recommendation to present the final-form rulemaking to the EQB.

The Department will provide assistance as necessary to facilitate IRRC's review of the enclosed final-form rulemaking under Section 5.1(e) of the Regulatory Review Act.

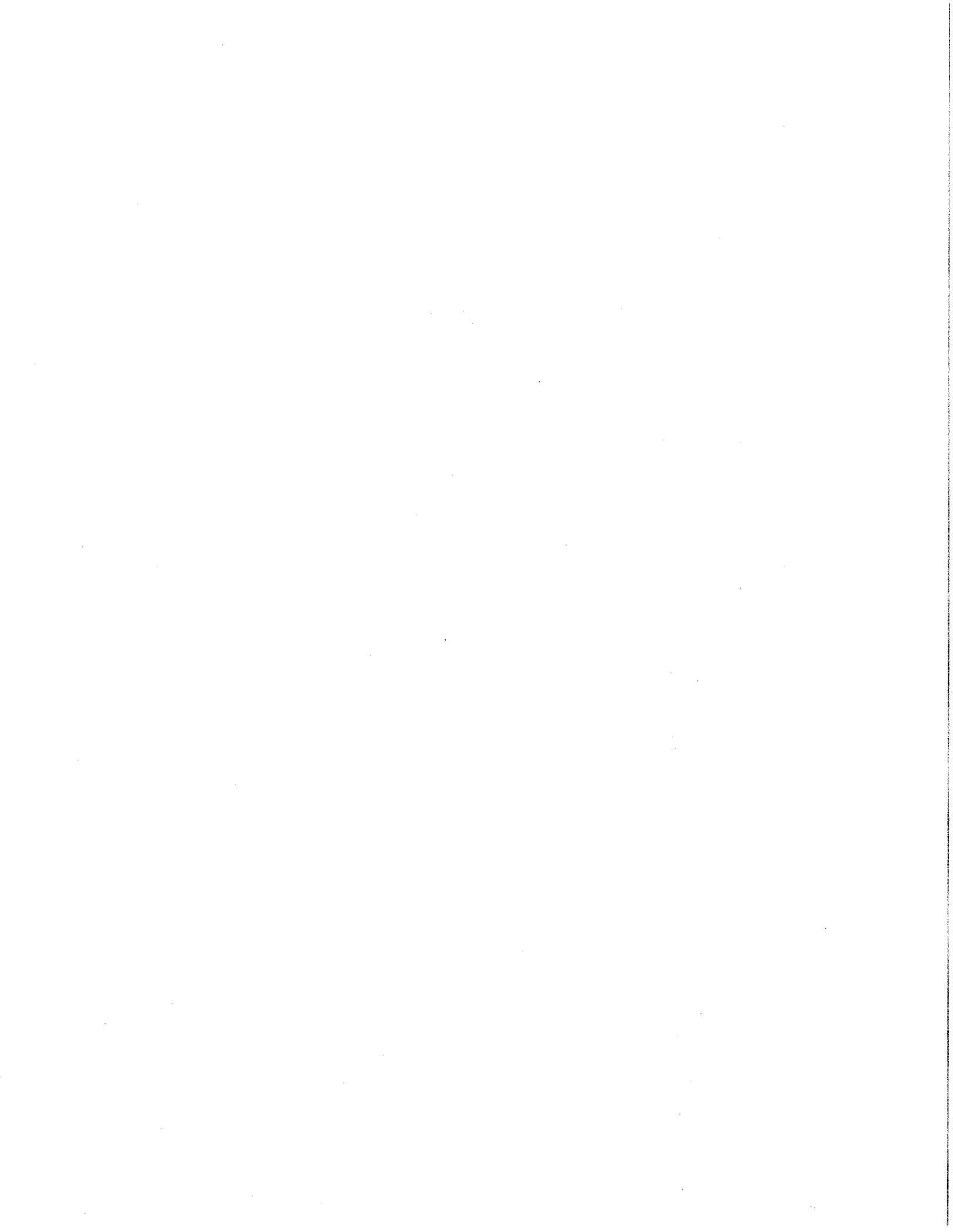
Please contact me at 717.783.8727 or by e-mail at ledinger@pa.gov if you have any questions or need additional information.

Sincerely,



Laura Edinger
Regulatory Coordinator

Enclosures





**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO
THE REGULATORY REVIEW ACT**

I.D. NUMBER: 7-477

SUBJECT: Measurement and Reporting of Condensable Particulate Matter Emissions

AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

TYPE OF REGULATION

- Proposed Regulation
- Final Regulation
- Final Regulation with Notice of Proposed Rulemaking Omitted
- 120-day Emergency Certification of the Attorney General
- 120-day Emergency Certification of the Governor
- Delivery of Tolled Regulation
 - a. With Revisions
 - b. Without Revisions

2011 JUN 21 AM 9:47

RECEIVED
IRRC

FILING OF REGULATION

DATE

SIGNATURE

DESIGNATION

1-24-14

Dean Cingich

Majority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
Rep. Ron Miller

1-24-14

Jerrid Kal

Minority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
Rep. Greg Vitali

1/24/14

Patricia Cole

Majority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
Senator Gene Yaw

1/24/14

Yamsted

Minority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
Senator John Yudichak

1/24/14

K Cooper

INDEPENDENT REGULATORY REVIEW COMMISSION

ATTORNEY GENERAL (for Final Omitted only)

LEGISLATIVE REFERENCE BUREAU (for Proposed only)

