

Regulatory Analysis Form

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INDEPENDENT REGULATORY REVIEW COMMISSION

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(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:

Condensable Particulate Matter Measurement and Reporting Requirements.

(5) Agency Contacts (List Telephone Number and Email Address):

Primary Contact: Michele Tate, 783-8727, mtate@pa.gov

Secondary Contact: Patricia M. Allan, 783-8727, pmallan@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 proposed rulemaking would amend 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 proposed change under § 139.12(a) (relating to emissions of particulate matter) explains the process used for determining compliance with filterable PM emission limits. The proposed amendments under §§ 139.12(b) and (c) explain the process used for determining compliance with filterable and condensable PM emission standards. The proposed change under § 139.12(d) explains the compliance demonstration process. Finally, the proposed change under § 139.53 (relating to filing monitoring reports) clarifies where monitoring reports must be filed. The proposed rulemaking would amend § 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).

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

The proposed 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.

No, the proposed rulemaking is not mandated by Federal or state law or court order, or Federal regulation. The proposed rulemaking would update § 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 test 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 test method 202 increase the precision and improve the consistency of the method for measuring condensable PM. The Department incorporates 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 only required to test for compliance with filterable PM emission standards.

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, 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.

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 primary PM-10 and PM_{2.5} in a similar manner as measured by the applicable reference method or equivalent method. See 25 Pa. Code § 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 in the Department's *Source Testing Manual* by reference under § 139.4(5).

The proposed 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 proposed rulemaking would account 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 regulation is merely an update and clarification of existing requirements to which source owners and operator are already subject. No data was generated, available, or considered for this regulation.

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

The proposed rulemaking would update and clarify 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 proposed rulemaking does not impose new or additional requirements or compliance costs on the owners and operators of existing stationary sources. Because the EPA promulgated revisions to its test method 201A for measuring filterable PM-10 and test method 202 for measuring condensable PM emissions from stationary sources at 75 FR 80118, the proposed rulemaking updates Chapter 139 to reflect the promulgated test methods. The Department incorporates these test methods in the Department's *Source Testing Manual* by reference at § 139.4(5).

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 would be 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 test requirements under proposed subsections (b)—(d).

Under proposed § 139.12(b), the owner or operator of a stationary source that is subject to PM-10 and PM_{2.5} emission limitations 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 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 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).

(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 Chapter 127, Subchapters D and E would be subject to the PM testing requirements of the proposed rulemaking. Because this proposed rulemaking would update and clarify the applicability of PM testing requirements to which the owners and operators of these sources are already subject, but does not add new testing requirements, the proposed rulemaking would 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 proposed rulemaking would update and clarify the applicability of certain testing and reporting requirements to which the owners and operators of certain stationary sources are already subject and would 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 proposed rulemaking does not apply to local governments.

(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 proposed rulemaking would not increase costs to the Commonwealth because it would update and clarify the applicability of certain testing and reporting requirements for PM. No new staff resources will be necessary to implement the proposed 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 11/12	FY +1 Year 12/13	FY +2 Year 13/14	FY +3 Year 14/15	FY +4 Year 15/16	FY +5 Year 16/17
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 (08/09)	FY-2 (09/10)	FY-1 (10/11)	Current FY (11/12)
Environmental Program Management (161-10382)	\$37,664,000	\$31,100,000	\$28,166,000	\$28,035,000
Clean Air Fund Major Emission Facilities (215-20077)	\$22,660,000	\$21,877,000	\$19,164,000	\$22,748,000
Clean Air Fund Mobile and Area Facilities (233-20084)	\$7,949,000	\$6,121,000	\$5,050,000	\$6,430,000

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

The proposed rulemaking would account 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 proposed 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 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.

(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.

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 proposed 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 proposed rulemaking does not impose new or additional requirements or compliance costs on these owners and operators. Therefore, the proposed rulemaking should not 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 proposed 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 proposed 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: 3rd Quarter 2012
- B. The date or dates on which public meetings or hearings will be held: 3rd Quarter 2012
- C. The expected date of promulgation of the proposed regulation as a final-form regulation: 3rd Quarter 2013
- D. The expected effective date of the final-form regulation: 3rd Quarter 2013
- E. The date by which compliance with the final-form regulation will be required: 3rd Quarter 2013
- 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.

**FACE SHEET
FOR FILING DOCUMENTS
WITH THE LEGISLATIVE REFERENCE
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(Pursuant to Commonwealth Documents Law)

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DO NOT WRITE IN THIS SPACE

#2955

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

By: *Amy M. Elliott*
(Deputy Attorney General)

JUN 18 2012

DATE OF APPROVAL

☒ Check if applicable
Copy not approved. Objections attached.

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

DEPARTMENT OF ENVIRONMENTAL
PROTECTION
ENVIRONMENTAL QUALITY BOARD

(AGENCY)

DOCUMENT/FISCAL NOTE NO. 7-477

DATE OF ADOPTION APRIL 17, 2012

BY *[Signature]*

TITLE **MICHAEL KRANCER
CHAIRMAN**

EXECUTIVE OFFICER CHAIRMAN OR SECRETARY

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

BY *Megan L. Considine*
Megan L. Considine
MAY 18 2012

DATE OF APPROVAL

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

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

NOTICE OF PROPOSED 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]
Condensable Particulate Matter Measurement and Reporting Requirements

The Environmental Quality Board (Board) proposes to amend Chapters 121 and 139 (relating to general provisions; and sampling and testing) to read as set forth in Annex A. The proposed rulemaking would amend Chapter 139 to update and clarify what sampling and testing methods are used to demonstrate compliance with certain particulate matter (PM) emission limitations. The proposed change under § 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 proposed amendments under §§ 139.12(b) and (c) explain the process used for determining compliance with filterable and condensable PM emission limitations. The proposed amendment under § 139.12(d) explains the compliance demonstration process. The proposed change under § 139.53 (relating to filing monitoring reports) specifies where monitoring reports must be filed.

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

This proposed rulemaking was adopted by the Board at its meeting on April 17, 2012.

A. Effective Date

This proposed rulemaking will be effective upon final-form publication in the *Pennsylvania Bulletin*.

B. Contact Persons

For further information, contact Arleen Shulman, 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. Information regarding submitting comments on this proposed rulemaking appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available electronically through the Department of Environmental Protection’s (Department) web site at www.depweb.state.pa.us (DEP Search/Keyword: Public Participation).

C. Statutory Authority

This proposed 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 (PM₁₀) 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 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 (referred to as total suspended particulate or TSP). See 75 FR 80118, 80120 (December 21, 2010).

On September 11, 1971, 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. 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 existing stationary sources subject to the requirements of §§ 123.11—123.13 are only required to test for compliance with filterable PM emission standards.

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 $\mu\text{g}/\text{m}^3$. See 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 µg/m³ from 65 µg/m³ (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.

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 primary PM-10 and PM_{2.5} in a similar manner as measured by the applicable reference method or equivalent method. See 25 Pa. Code § 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). 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 by reference in the Department's *Source Testing Manual* under § 139.4(5) (relating to references).

Proposed § 139.12(a) clarifies that the owner and operator subject to the PM emission standards under §§ 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 test requirements under proposed subsections (b)—(d).

Proposed § 139.12(b) clarifies that the owner and operator of a stationary sources subject to PM-10 and PM_{2.5} emission limitations 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 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.

Additionally, the proposed amendment under § 139.12(c) explains the process used for determining compliance with filterable and condensable PM emission limitations.

The proposed amendment under § 139.12(d) explains the compliance demonstration process for the measurement and reporting of filterable and condensable PM.

The proposed change under § 139.53 modifies where monitoring reports must be filed.

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC, Committee) on the proposed rulemaking on October 20, 2011. 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.

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

The proposed 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 proposed rulemaking will be submitted to the EPA upon final-form publication as a revision to the Commonwealth's SIP.

E. Summary of Regulatory Requirements

§ 121.1. Definitions.

The proposed rulemaking amends § 121.1 to add definitions for the terms "condensable particulate matter" and "filterable particulate matter" to support the amendments to Chapter 139. These definitions are consistent with the Federal definitions.

§ 139.12. Emissions of particulate matter.

The proposed rulemaking revises the existing language in § 139.12 to proposed subsection (a) and adds proposed subsections (b), (c) and (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 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 codified at 40 CFR 52.2020 (relating to identification of plan).

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

§ 139.53. Filing monitoring reports.

The proposed 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. Benefits, Costs and Compliance

Benefits

The proposed rulemaking would account 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 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 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 proposed rulemaking updates and clarifies the applicability of certain requirements to which the owners and operators of certain stationary sources are already subject, the proposed rulemaking does not impose additional paperwork requirements on the owners and operators of these existing stationary sources.

G. 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 proposed 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}.

H. Sunset Review

These regulations 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.

I. 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 this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the

House and Senate Environmental Resources and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria that have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Department, the General Assembly and the Governor of comments, recommendations or objections raised.

J. Public Comments

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board on or before September 10, 2012. Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received on or before September 10, 2012. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final regulation will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@pa.gov and must also be received by the Board on or before September 10, 2012. A subject heading of the proposed rulemaking and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt.

K. Public Hearings

The Board will hold three public hearings for the purpose of accepting comments on the proposed rulemaking. The hearings will be held as follows:

August 7, 2012
1:00 p.m.

Department of Environmental Protection
Southwest Regional Office
Monongahela Conference Room
400 Waterfront Drive
Pittsburgh, PA 15222-4745

August 9, 2012
1:00 p.m.

Department of Environmental Protection
Southeast Regional Office
Schuylkill River Conference Room
2 East Main Street

Norristown, PA 19401

August 10, 2012

1:00 p.m.

Department of Environmental Protection

Rachel Carson State Office Building

Conference Room 105

400 Market Street

Harrisburg, PA 17105

Persons wishing to present testimony at a hearing are requested to contact the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526, at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 10 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the Americans with Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs.

Michael L. Krancer,
Chairperson

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. Note that 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 set forth 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.

(2) Isokinetic sampling procedures shall be used in sampling for particulate matter emissions and the weight determined gravimetrically after the removal of uncombined water.

(3) Test methods and procedures shall be equivalent to those specified in § 139.4(5) (relating to references). The equipment shall be inert where appropriate and similar to that specified in § 139.4(1).

(4) The minimum sampling time shall be 1 hour or as specified in an applicable standard or by the Department and the minimum sample volume shall be 50 cubic feet or as specified in an applicable standard or by the Department, corrected to standard conditions (dry basis).

(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 emission limitation issued by the Department prior to January 1, 2011, shall not be based on condensable particulate matter unless required by the terms and conditions of a plan approval, operating permit or the State Implementation Plan codified at 40 CFR 52.2020 (relating to identification of plan).

(d) A compliance demonstration required under subsection (b) or (c) shall include the measurement and reporting of filterable and condensable particulate matter. Test methods and procedures shall be equivalent to those specified in § 139.4(5).

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:

(1) Submitted on forms supplied or in a format specified by the Department.

(2) Sworn by the person exercising managerial responsibility over the operation of the source for which monitoring is required.

(3) Submitted on the schedule established by order, condition of plan approval or permit or this subchapter.

(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.**

(b) In addition to the information required by subsection (a) the Department may, by use of a standard form or by written notice, require information regarding test methods, test conditions, operating conditions of the source or other information which may be necessary to properly evaluate the results of emissions monitoring performed at a source.



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

POLICY OFFICE

June 22, 2012

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

Re: Proposed Rulemaking – Triennial Review of Water Quality Standards (#7-475) and
Proposed Rulemaking – Condensable Particulate Matter Measurement and Reporting
Requirements (#7-477)

Dear Mr. Sumner:

Pursuant to section 5(a) of the Regulatory Review Act, please find enclosed copies of two proposed regulations for review and comment by the Independent Regulatory Review Commission. The proposed rulemakings are scheduled for publication in the *Pennsylvania Bulletin* on July 7, 2012, with a 45-day public comment period and one public hearing in Harrisburg for the Triennial Review of Water Quality Standards proposed rulemaking and a 60-day public comment period and three public hearings in Pittsburgh, Norristown, and Harrisburg, respectively, for the Condensable Particulate Matter Measurement and Reporting Requirements proposed rulemaking. The Environmental Quality Board (EQB) adopted the enclosed proposed rulemakings on April 17, 2012.

Proposed Rulemaking: Triennial Review of Water Quality Standards: Section 303(c)(1) of the federal Clean Water Act requires that states periodically, but at least once every three years, review and revise as necessary their water quality standards. This proposed regulatory package will fulfill Pennsylvania's triennial review obligation. Pennsylvania's water quality standards, which are codified in Chapter 93 and portions of Chapter 92a, are designed to implement the requirements of Sections 5 and 402 of The Clean Streams Law and Section 303 of the Federal Clean Water (33 U.S.C.A. § 1313). The water quality standards consist of the designated uses of the surface waters of this Commonwealth, along with the specific numerical and narrative criteria necessary to achieve and maintain those uses and an antidegradation policy. Thus, water quality standards are in-stream water quality goals that are implemented by imposing specific regulatory requirements, such as treatment requirements and effluent limitations, on individual sources of pollution. The proposed regulations are comprised of:

- Updates to definitions and terms in Section 93.1 in order to reflect their current use in Chapter 93 and the water quality standards program.
- Revisions and updates to cross references in Chapter 93 pertaining to Chapter 92a in order to correct obsolete references to old Chapter 92.

- Amendments to Section 93.4d(a) to improve the public notification process associated with a redesignation.
- Updates to Specific Water Quality Criteria in §93.7 Table 3, including Chloride and Sulfate and Dissolved Oxygen.
- Updates to Metals Criteria in §93.8b Conversion Factors Table, including Chromium III conversion factor, which was updated by the U.S. EPA
- Updates to Water Quality Criteria for Toxic Substances - §93.8c. Table 5, including *Aquatic Life Criteria* for Acrolein (EPA Update – Aug 2009); Nonylphenol (EPA Update – Feb 2006); Molybdenum; and Resorcinol and sulfonates - site-specific criteria (Beazer & BCACS); and *Human Health Criteria Updates* for Acrolein (EPA Update – May 2009); Phenol (EPA Update – May 2009); Benzyl chloride; 2-Butoxyethanol; Cyclohexylamine; 1,2 cis-dichloroethylene; 1,2,4 and 1,3,5-trimethylbenzene; Acrylamide and 1,4-dioxane (currently in Ch 16, App A, Table 1A); Strontium; Molybdenum; and Resorcinol (added by DEP for site-specific criteria (Beazer & BCACS))
- Updates, revisions and corrections in Chapter 93 for typos, translation errors and missed references associated with prior rulemaking and/or publication activities; including corrections to use designations and stream entries in Drainage List in Sections 93.9a-93.9z, which are not being addressed by other stream redesignation rulemakings.

The Department of Environmental Protection (Department) consulted with the Water Resources Advisory Committee (WRAC) in its development of the proposed rulemaking at the committee's July 14, 2010, April 13, 2011, June 15, 2011, October 12, 2011, December 16, 2011 and January 11, 2012 meetings. On January 11, 2012, the WRAC voted to present this rulemaking package to the Board.

Proposed Rulemaking: Measurement and Reporting of Condensable Particulate Matter Emissions: This proposed rulemaking includes amendments to 25 Pa. Code Chapters 121 and 139 in order to clarify certain requirements for owners and operators of affected stationary sources regarding compliance demonstrations for particulate matter (PM) emissions. From 1971 through 1997, the Department's regulations required stationary sources – including power plants, industrial boilers and other industrial burning or combustion-related activities – to use both dry filters and wet impingers to test for PM emissions. In 1997, the Department removed the requirement to use wet impingers—which measured condensable PM—because that provision was more stringent than the applicable federal requirement. Subsequent federal regulations have defined two sub-categories of particulate matter (PM-10 and PM_{2.5}), which include both filterable and condensable PM. Sources in Pennsylvania subject to both PM-10 and PM_{2.5} emission standards monitoring in their operating permits are currently measuring both fractions of PM using filterable and condensable methods, while other sources are only required to measure the filterable fraction of PM. The proposed regulation updates Chapter 139 to clarify the sampling and testing methods necessary to demonstrate compliance with the relevant PM emission limitations. As such, the proposed amendments do not impose new or additional requirements or compliance costs on the owners and operators of existing stationary sources.


June 22, 2012

The Department discussed the draft proposed rulemaking with the Air Quality Technical Advisory Committee (AQTAC) 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.

The Department will provide the Commission with the assistance required to facilitate a thorough review of the enclosed proposals. Section 5(g) of the Regulatory Review Act provides that the Commission may, within 30 days of the close of the comment period, convey to the agency its comments, recommendations and objections to the proposed regulation. The Department will consider any comments, recommendations or suggestions made by the Commission, as well as the Committees and public commentators, prior to final adoption of the enclosed rulemakings.

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

Sincerely,

A handwritten signature in cursive script that reads "Michele L. Tate".

Michele L. Tate
Regulatory Coordinator

Enclosures



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF POLICY

TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO
THE REGULATORY REVIEW ACT

#2955

I.D. NUMBER: 7- 477

SUBJECT: measurement and Reporting of condensable Particulate matter
AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION Emissions

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 Tolerated Regulation
- a. ☐ With Revisions b. ☐ Without Revisions

2012 JUN 22 PM 1:22

RECEIVED
IRRC

FILING OF REGULATION

DATE

SIGNATURE

DESIGNATION

6-22-12 M. HutchinsonMajority Chair, HOUSE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY
Rep. Scott Hutchinson6-22-12 L. P. AlvaradoMinority Chair, HOUSE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY6/22/12 Kat DavisMajority Chair, SENATE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY
Senator Mary Jo White6-22-12 Richard B. ...Minority Chair, SENATE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY6/23/12 ...

INDEPENDENT REGULATORY REVIEW COMMISSION

6/22/12 M. Phelps

ATTORNEY GENERAL (for Final Omitted only)

LEGISLATIVE REFERENCE BUREAU (for Proposed only)

