

Regulatory Analysis Form

(Completed by Promulgating Agency)



SECTION I: PROFILE

(1) Agency:

Environmental Protection

(2) Agency Number:

Identification Number: #7-444

IRRC Number: 2802

(3) Short Title:

Outdoor Wood-Fired Boilers

(4) PA Code Cite:

25 Pa. Code Chapters 121 and 123

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

Primary Contact: Michele Tate, 783-8727

Secondary Contact: Kelly J. Heffner, 783-8727

(6) Primary Contact for Public Comments (List Telephone Number, Address, Fax Number and Email Address) – Complete if different from #5:

Environmental Quality Board,
P.O. Box 8477
Harrisburg, PA 17105-8477
regcomments@state.pa.us

(All Comments will appear on IRRC'S website)

(7) 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

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

This proposed rulemaking would add requirements for outdoor wood-fired boilers (OWBs) under § 123.14 (relating to outdoor wood-fired boilers) for a person, manufacturer, supplier or distributor who sells, offers for sale, leases or distributes an OWB for use in this Commonwealth or a person who installs, purchases, receives, leases, owns, uses or operates an OWB in this Commonwealth.

The proposed amendments would establish particulate matter emission standards and setback requirements for newly installed OWBs. The proposal would also establish stack height, fuel, regulatory, written notice and recordkeeping requirements for newly installed and existing OWBs.

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

- A. The date by which the agency must receive public comments: February 2010
- B. The date or dates on which public meetings or hearings will be held: January 2010
- C. The expected date of promulgation of the proposed regulation as a final-form regulation: November 2010
- D. The expected effective date of the final-form regulation: November 2010
- E. The date by which compliance with the final-form regulation will be required: November 2010
- F. The date by which required permits, licenses or other approvals must be obtained: NA

(10) 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.

SECTION II: STATEMENT OF NEED

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

Statutory authority for this action comes from 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 from section 4.2 of the APCA (35 P.S. § 4004.2), which authorizes the Board to adopt regulations more stringent than Federal requirements when the control measures are reasonably necessary to achieve and maintain the ambient air quality standards.

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(12) 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 law, court order or regulation and no companion Federal regulations exist.

However, the United States Environmental Protection Agency (EPA) has initiated a voluntary program that encourages manufacturers of OWBs to improve air quality through developing and distributing cleaner-burning, more efficient OWB models.

The EPA OWB Voluntary Program. Unlike indoor woodstoves that are regulated by the EPA, no Federal standards exist for controlling emissions from OWBs and the majority of existing OWB models are not equipped with air pollution controls. Phase 1 of the program was in place from January 2007 through October 15, 2008. To qualify for Phase 1, manufacturers were required to develop an OWB model that was 70% cleaner-burning than unqualified models by meeting the EPA's air emissions standard of 0.6 pounds of PM per million Btu heat input as tested by an independent accredited laboratory. Most older-model, non-qualifying OWBs emit about 2.0 pounds of PM per million Btu heat input. Phase 1 Partnership Agreements ended when the Phase 2 Partnership Agreements were initiated on October 16, 2008. To qualify for Phase 2 certification, manufacturers must develop an OWB model that is 90% cleaner-burning than pre-program, unqualified OWBs and not exceed the EPA's air emissions standard of 0.32 pounds of PM per million Btu heat output as tested by an independent accredited laboratory. Phase 2-qualifying OWBs are currently identified by a white hang tag. As of May 29, 2009, there are seven models available nationwide that meet the EPA Phase 2 emission standard.

(13) 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.

On July 18, 1997, the EPA revised the National Ambient Air Quality Standard (NAAQS) for particulate matter (PM) to add a new standard for fine particles, using fine particulates equal to and less than 2.5 micrometers in diameter (PM_{2.5}) as the indicator. The EPA set the health-based (primary) and welfare-based (secondary) PM_{2.5} annual standards at a level of 15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and the primary and secondary 24-hour standards at a level of 65 $\mu\text{g}/\text{m}^3$ (62 FR 38652). The health-based primary standard is designed to protect human health from elevated levels of PM_{2.5}, which have been linked to premature mortality and other important health effects. The secondary standard is designed to protect against major environmental effects of PM_{2.5} such as visibility impairment, soiling and materials damage. The following counties in this Commonwealth have been designated nonattainment for the 1997 24-hour PM_{2.5} NAAQS: Allegheny (Liberty-Clairton), Allegheny (remainder), Armstrong, Berks, Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene, Indiana, Lancaster, Lawrence, Lebanon, Montgomery and Philadelphia.

Subsequently, on October 17, 2006, the EPA revised the primary and secondary 24-hour NAAQS for PM_{2.5} to 35 $\mu\text{g}/\text{m}^3$ from 65 $\mu\text{g}/\text{m}^3$ (71 FR 61236). On December 18, 2008, all or portions of the following counties in Pennsylvania were designated by the EPA as nonattainment for the 2006 24-hour PM_{2.5} NAAQS: Allegheny (Liberty-Clairton), Allegheny (remainder), Armstrong (partial), Berks, Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene (partial), Indiana

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(partial), Lancaster, Lawrence (partial), Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Washington, Westmoreland and York.

The health effects associated with exposure to PM_{2.5} are significant. Epidemiological studies have shown a significant correlation between elevated PM_{2.5} levels and premature mortality. Other important health effects associated with PM_{2.5} exposure include 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. Individuals particularly sensitive to PM_{2.5} exposure include older adults, people with heart and lung disease and children.

OWBs are a widespread source of PM, including approximately 75% PM_{2.5}, and toxic air pollutant emissions in this Commonwealth, making OWB emissions a major health threat. The Northeast States for Coordinated Air Use Management (NESCAUM) has conducted stack tests on uncontrolled OWBs. Based on the test results, the average PM_{2.5} emissions from one uncontrolled OWB are equivalent to the emissions from 205 oil furnaces or as many as 8,000 natural gas furnaces. Cumulatively, the smallest OWB has the potential to emit almost 1 1/2 tons of PM every year.¹

Wood smoke from OWBs is made up of volatile organic compounds, polycyclic aromatic hydrocarbons, metals, dioxins and furans. The PM_{2.5} from wood smoke is linked to asthma, chronic obstructive pulmonary disease, cardiac effects and lung cancer. Upwards of 50% of the general population is susceptible to acute and chronic PM_{2.5} exposure including children, asthmatics, persons with respiratory or heart disease, diabetics and the elderly.²

The large firebox and outdoor location of the OWB render it tempting for persons to also use the OWB as a receptacle to burn household garbage, hazardous waste and other materials. Additional toxic and hazardous air pollutant (HAP) emissions from burning these unknown substances increase the risk of potential adverse health effects of emissions from OWBs. OWBs are typically equipped with a very short stack, many times only 8 – 12 feet high. The short stacks and reduced drafts fail to disperse emissions adequately and can cause smoky conditions at or near ground level. OWBs are often operated year round to heat household water, swimming pools, greenhouses and the like, emitting pollutants throughout the year. Neighbors have to deal with the smoke and odors even in the summer when they would like to enjoy the outdoors. As a result, there are many citizen complaints regarding the operation of OWBs.

This proposed rulemaking would reduce the problems associated with the operation of OWBs, including smoke, odors and burning prohibited fuels and wastes including garbage, tires, hazardous waste and the like. The proposed rulemaking would help assure that all of the citizens of this Commonwealth will benefit from reduced emissions of PM_{2.5} and air toxics from OWBs. Reductions in ambient levels of PM_{2.5} from the use of OWBs would promote improved human and animal health and welfare, improved

¹ NESCAUM. Northeast States for Coordinated Air Use Management. Assessment of Outdoor Wood-fired Boilers. P. viii. March 2006 (revised June 2006); available at: <http://www.nescaum.org/documents/assessment-of-outdoor-wood-fired-boilers>.

² Brown, David R., Callahan, Barbara G. and Boissevain, Andrea L. (2007) 'An Assessment of Risk from Particulate Released from Outdoor Wood Boilers', Human and Ecological Risk Assessment, 13:1, 191 - 208

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visibility, decreased soiling and materials damage and decreased damage to plants and trees. Attaining and maintaining levels of PM_{2.5} below the health-based NAAQS is important to reduce premature mortality and other health effects associated with PM_{2.5} exposure.

This control measure is reasonably necessary to attain and maintain the 1997 and 2006 PM_{2.5} 24-hour NAAQS. The proposed rulemaking, if adopted by the Board as final rulemaking, would be submitted to the EPA as a revision to the State Implementation Plan.

(14) If scientific data, studies or references are used to justify this regulation, please submit material with the regulatory package. Please provide full citation and/or links to internet source.

Brown, David R., Callahan, Barbara G. and Boissevain, Andrea L. (2007), 'An Assessment of Risk from Particulate Released from Outdoor Wood Boilers', Human and Ecological Risk Assessment, 13:1, 191 – 208

Johnson PRS 2006. In-field ambient fine particle monitoring of an outdoor wood boiler: exposure and public health concerns. Human Ecol Risk Assess 12:1153–70

NESCAUM. Northeast States for Coordinated Air Use Management. Assessment of Outdoor Wood-fired Boilers. March 2006 (revised June 2006); available at:
<http://www.nescaum.org/documents/assessment-of-outdoor-wood-fired-boilers>.

United States Environmental Protection Agency, Frequently Asked Questions EPA's Phase 2 Voluntary Partnership Program: Hydronic Heaters (October 15, 2008) and EPA Outdoor Hydronic Heater website:
<http://epa.gov/owhh/index.htm>.

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

There are two small businesses in this Commonwealth that manufacture OWBs that would be affected by the emission standard requirements in proposed § 123.14. Mahoning Outdoor Furnaces (Mahoning) is located in Mahaffey, Pennsylvania, and has about 40 employees. Freedom Outdoor Furnaces (Freedom) is located in Olanta, Pennsylvania, and has about 18 employees. Both Mahoning and Freedom are aware of the need to develop a cleaner-burning OWB. Both manufacturers signed the Phase 1 Partnership Agreement for the EPA OWB Voluntary Program and Mahoning is one of the industry partners that helped create the program.

Currently, Mahoning is working with a consultant in Vermont to develop a model that meets the EPA Phase 2 emission standard and will likely have a qualifying model available during the summer of 2009. Freedom believes that they already manufacture a model that meets the EPA Phase 2 emission standard, but they have not tested the model as required by the EPA to confirm their belief. Meeting the Phase 2 emission standard of the EPA OWB Voluntary Program would ensure that Mahoning and Freedom stay competitive on the National level. Mahoning and Freedom would also be able to continue manufacturing their noncomplying product in this Commonwealth as long as the following two criteria are met:

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- The noncomplying OWB is intended for shipment and use outside of this Commonwealth.
- The manufacturer, supplier, distributor or person has taken reasonably prudent precautions to ensure that the noncomplying OWB is not distributed to or within this Commonwealth.

There are numerous suppliers and distributors, located inside and outside of this Commonwealth, and numerous manufacturers located outside this Commonwealth that sell OWBs in Pennsylvania. These groups would be impacted by the emission standard requirements in proposed § 123.14 and would be able to only sell or distribute complying OWBs into this Commonwealth.

The people in the general public that buy new OWBs for use in this Commonwealth on or after the effective date of adoption of this proposed rulemaking would be affected by the emission, stack height, setback, fuel, seasonal operation and written notice requirements proposed under § 123.14. Purchasers of new OWBs will pay about 15% more for a Phase 2-qualifying model than a non-qualifying OWB model. Because the Phase 2-qualifying OWBs are more efficient, the owners will use less wood if the Phase 2-qualifying OWB is properly maintained and operated.

The people in the general public that own existing OWBs would also be impacted due to the proposed stack height, fuel and seasonal operation requirements proposed under § 123.14. This proposal would require owners of existing OWBs to ensure that the stack height and seasonal operation of the OWB comply with the requirements of the proposed rulemaking. The fuel requirements should not be a burden because OWB manufacturers have designed the units to burn only the allowed fuels listed in the proposed rulemaking.

Real estate agents and brokers may also be affected by this proposed rulemaking. The proposed rulemaking prohibits the sale of non-Phase 2 OWB models in this Commonwealth after the effective date. In the event that an unqualified OWB model is located on a property that is being sold after the effective date, the transfer of ownership and operation of the existing, unqualified OWB may be prohibited. While the regulation as currently drafted does not explicitly address the issue of transferring non-Phase 2 OWBs through a real estate transfer, the Department could interpret the regulation to prohibit that transfer and require that the non-qualifying OWB be dismantled before the real estate transfer takes place.

These entities have a range of experience complying with regulations. The total number of affected sellers, suppliers, manufacturers, owners, users and installers of regulated products is unknown. The total number of affected real estate professionals is unknown.

(16) 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.

Mahoning Outdoor Furnaces, Mahaffey PA, and Freedom Outdoor Furnaces, Olanta PA, any other OWB manufacturers in this Commonwealth, and manufacturers of OWBs located outside this Commonwealth would be required to comply if they wish to distribute OWBs in this Commonwealth.

Suppliers and Distributors of OWBs in this Commonwealth.

Owners of existing OWBs.

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Purchasers of new OWBs.

Real estate professionals.

The total number of affected manufacturers, distributors, sellers, suppliers, owners, users and installers of regulated products is unknown. The total number of affected real estate professionals is unknown.

SECTION III: COST AND IMPACT ANALYSIS

(17) 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.

Manufacturers – The cost of complying with the new requirements includes the cost of manufacturing and distributing an OWB model that meets the EPA Phase 2 emission limits. There would be up-front, one-time costs for research and development if the company does not already manufacture a unit that meets the EPA Phase 2 emission standard. Research and development costs are not known. Costs for testing a model for compliance with the EPA standard would be approximately \$30,000, plus the cost of shipping it to one of the EPA-accredited laboratories. These costs would be offset by sales because the selling price of a Phase 2 OWB is about 15% more than the cost of an unqualified model. An OWB manufacturer that sells a Phase 2-qualifying model would have a market advantage in those states with OWB regulations.

Purchasers - Non-Phase 2-qualifying OWBs cost between \$8,000 and \$18,000, depending on the size of the unit. Currently, there are seven models available nationwide that meet the EPA Phase 2 emission limit. It is estimated that the Phase 2-qualifying units may be approximately 15% more expensive than the non-Phase 2-qualifying units because of the changes made to improve the efficiency of these units and reduce their emissions. However, most of these new models are significantly more efficient which means they will use less wood to produce the same amount of heat, reducing the cost of wood purchases.³

Operators - Operators of existing OWBs would be required to ensure that the stack height complies with the requirements of the proposed rulemaking. Therefore, operators of existing OWBs may be required to extend the height of the existing stack. A review of the Hearthside Fireplace, Patio and Barbecue Center internet catalog indicated that the cost would be between \$73 and \$84 for a two-foot section of chimney pipe and between \$119 and \$145 for a four-foot section of chimney pipe.⁴ Since each scenario would be different, it is not possible to estimate the cost of ensuring that the stack would be structurally sound.

³ United States Environmental Protection, Frequently Asked Questions EPA's Phase 2 Voluntary Partnership Program: Hydronic Heaters (October 15, 2008).

⁴ Hearthside Fireplace, Patio and Barbecue Center website; <http://www.hearth-sidedistributors.com/Catalog/6-Dura-Tech-Chimney?range=11%2C20%2C94>.

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Distributors, Sellers, Lessors – Nominal costs for “Notice to Buyers” paperwork and recordkeeping. A distributor or seller of an unqualified OWB would not be able to sell or distribute it in this Commonwealth.

(18) 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 is expected to impose no additional direct regulatory costs on local governments. The proposed rulemaking may save local governments time and money by making it unnecessary to pass local ordinances to control OWB operations.

If a local government uses an existing OWB to provide heat or hot water to local government facilities, the local government would incur those costs necessary to bring the existing OWB into compliance with the stack height requirements.

(19) 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 is expected to impose no additional direct regulatory costs or savings on state government, except that nominal costs will be experienced by the Commonwealth to assist in providing training, outreach and assistance to the regulated community. No new staff resources are anticipated to be necessary.

(20) 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 (08/09)	FY +1 Year (09/10)	FY +2 Year (10/11)	FY +3 Year (11/12)	FY +4 Year (12/13)	FY +5 Year (13/14)
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

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COSTS:	*Costs for research and development (R&D), and shipping to a certifying test laboratory, would be in addition to the \$30,000 testing cost per model listed below. The R&D and shipping costs are not known and would vary by manufacturer and model.					
Regulated Community	30,000*	30,000*	30,000*	30,000*	30,000*	30,000*
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	30,000*	30,000*	30,000*	30,000*	30,000*	30,000*
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

(20a) Provide the past three year expenditure history for programs affected by the regulation.

Program	FY-3 (05/06)	FY-2 (06/07)	FY-1 (07/08)	Current FY (08/09)
Environmental Program Management (161-10382)	\$37,049,000	\$36,868,000	\$39,909,000	\$41,800,000
Clean Air Fund Major Emission Facilities (215-20077)	\$24,290,000	\$26,218,000	\$23,872,000	\$24,053,000
Clean Air Fund Mobile and Area Facilities (233-20084)	\$8,231,000	\$12,863,000	\$8,505,000	\$9,613,000

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

The cost of necessary health care when the susceptible population is exposed to OWB emissions must be balanced with the costs of the proposed rulemaking to the regulated manufacturers, distributors and sellers. The cost of reduced property values and loss of quality of life to neighbors of an OWB operator must also be considered. The potential minimum total annual costs to the regulated industry for research and development, shipping costs, and \$30,000 for testing, per model, are negligible compared to the improved health and environmental benefits that would be gained from this proposed rulemaking, ranging from reduced visits to hospitals for persons susceptible to asthmatic episodes and other respiratory problems to improved visibility and reduced soiling of infrastructure.

Local governments will benefit from the proposed regulations because the cost of promulgating local OWB ordinances will no longer be necessary and there will be statewide regulations in effect to react to OWB complaints. Local and state governments will also be able to respond effectively to OWB

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complaints.

Implementation of this PM_{2.5} emission reduction measure is reasonably necessary in this Commonwealth to attain and maintain the health-based 24-hour PM_{2.5} NAAQS. The proposed amendments may also reduce ambient outdoor concentrations of HAPs.

(22) 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 consulted with the Air Quality Technical Advisory Committee (AQTAC) about the proposed rulemaking on May 28, 2009. The AQTAC unanimously concurred with the Department's recommendation to seek Board approval of the proposed rulemaking, with modifications as discussed at the meeting. The specific modifications included some minor word changes and a request that public comment be requested in the Preamble on a phase-out period for non-Phase 2-qualifying OWBs and what the phase-out deadline should be. The Department also consulted with the Citizens Advisory Council on July 21, 2009, the Small Business Compliance Advisory Committee on July 22, 2009, and the Agricultural Advisory Board on August 19, 2009.

(23) 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.

There are no alternative regulatory provisions available that will achieve the needed level of emission reductions from OWBs.

(24) 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.

These proposed amendments are more stringent than Federal regulations, since no Federal regulations exist.

The use of older model uncontrolled OWBs that do not meet the EPA OWB Phase 2 emission standard generates PM and toxic air pollution that affects human health and is the source of many odor and nuisance complaints. The NESCAUM has conducted stack tests on these uncontrolled OWBs. Based on the test results, the average PM_{2.5} emissions from one uncontrolled OWB are equivalent to the emissions from 205 oil furnaces, or as many as 8,000 natural gas furnaces. Cumulatively, the smallest OWB has the potential to emit almost 1 1/2 tons of PM every year.

In its 2006 report, the NESCAUM estimates that over 155,000 OWBs have been sold nationwide from 1990 through 2005. Based on sales estimates, OWBs emitted over 233,000 tons of PM_{2.5} nationwide in 2005.

Considering sales trends from 1990 through 2005, the NESCAUM estimates that there could be 500,000 OWBs in place nationwide by 2010. Based on that estimate, emissions from OWBs could reach 873,750 tons of PM_{2.5} nationwide per year by 2010.⁵

⁵ NESCAUM. Northeast States for Coordinated Air Use Management. Assessment of Outdoor Wood-fired Boilers. P. viii. March 2006 (revised June 2006); available at: <http://www.nescaum.org/documents/assessment-of-outdoor-wood-fired-boilers>.

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Of the estimated 155,000 OWBs sold nationwide through 2005, 95% were sold in nineteen states. This Commonwealth is listed as one of those nineteen states, and is sixth in the Nation for sales, behind Michigan, Wisconsin, Minnesota, Ohio and New York. The NESCAUM estimates that 11,836 OWBs, or 8%, were sold in this Commonwealth from 1990 through 2005. If the number of OWBs in this Commonwealth versus the number of OWBs in the United States continues to be 8%, then there could be approximately 40,000 OWBs in this Commonwealth by 2010.⁶

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

Several states, including seven Ozone Transport Region states, have or are developing regulations that specifically regulate OWBs. Connecticut, Massachusetts, New Hampshire, Maine and Vermont have enacted regulations. New York and Ohio are proposing OWB regulations. Maryland is also proposing regulations, but put them into effect as an emergency regulation on February 27, 2009. Washington, Colorado and New Jersey enforce OWB operations using existing regulations.

Manufacturers located in this Commonwealth that manufacture Phase 2-compliant OWBs would have a market advantage both in this Commonwealth and in states that have similar OWB regulations, but whose manufacturers do not produce compliant OWB models.

Manufacturers, distributors and sellers would not be able to distribute or sell non-complying OWB models in this Commonwealth, but would still be able to distribute these models in states that do not have OWB regulations.

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

No.

(27) 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.

Manufacturers would be required to test their OWBs. If the testing indicates that the OWB meets the EPA emission standard for a Phase 2-qualifying OWB, then the manufacturer would be able to label it as EPA-approved (currently with a white EPA-approved hang-tag) and sell and distribute it for use in this Commonwealth.

Prior to the execution of a sale or lease for a new or used OWB for use in this Commonwealth, the distributor, seller or lessor shall provide the prospective buyer or lessee with a copy of § 123.14 and a written notice. The written notice provides information about the OWB regulation and must be signed

⁶ NESCAUM. Northeast States for Coordinated Air Use Management. Assessment of Outdoor Wood-fired Boilers. P. 3-2. March 2006 (revised June 2006); available at: <http://www.nescaum.org/documents/assessment-of-outdoor-wood-fired-boilers>.

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by the distributor, seller or lessor and the buyer or lessee.

The distributor, seller or lessor shall keep copies of the signed written notices onsite for 5 years and provide the records to the Department upon request.

(28) 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.

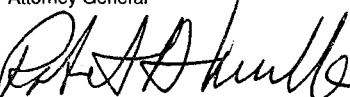
There are no special provisions.

**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


By: _____

(Deputy Attorney General)

OCT 01 2009

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. 7-444

DATE OF ADOPTION September 15, 2009

BY John Hanger

TITLE JOHN HANGER
CHAIRPERSON

EXECUTIVE OFFICER CHAIRMAN OR SECRETARY

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

BY


Andrew C. Clark

DATE OF APPROVAL

SEP 16 2009

(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**

Outdoor Wood-Fired Boilers

25 Pa. Code, Chapters 121 and 123

Notice of Proposed Rulemaking
Department of Environmental Protection
Environmental Quality Board
25 Pa. Code Chapters 121 and 123

The Environmental Quality Board (Board) proposes to amend 25 Pa. Code Chapters 121 and 123 (relating to definitions; and standards for contaminants) as set forth in Annex A. The proposed amendments would add four new terms and definitions under § 121.1 (relating to definitions). The proposed amendments would add provisions under Chapter 123 for the control of emissions of particulate matter (PM) from the operation of outdoor wood-fired boilers (OWBs).

This notice is given under Board order at its meeting of September 15, 2009.

A. Effective Date

These amendments will be effective upon publication in the *Pennsylvania Bulletin* as final rulemaking.

These amendments will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the Pennsylvania State Implementation Plan upon final rulemaking.

B. Contact Persons

For further information, contact Ron Davis, Chief, Division of Compliance and Enforcement, Bureau of Air Quality, 12th Floor, Rachel Carson State Office Building, P.O. Box 8468, Harrisburg, PA 17105-8468, telephone: 717-772-2328 or Robert "Bo" Reiley, Assistant Counsel, Bureau of Regulatory Counsel, 9th floor, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, telephone: 717-787-7060.

Information regarding submitting comments on this proposal appears in Section K of this preamble. Persons with a disability may use the AT&T Relay Service by calling 1-800-654-5984 (TDD users) or 1-800-654-5988 (voice users). This proposal is available electronically through the Department of Environmental Protection's (Department) web site at <http://www.depweb.state.pa.us> (Quick Access: Public Participation, then Proposals Open for Comment).

C. Statutory Authority

This action is being taken under the authority of section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants to the Board the authority to adopt regulations for the prevention, control, reduction and abatement of air pollution.

D. Background and Summary

On July 18, 1997, the EPA revised the National Ambient Air Quality Standard (NAAQS) for particulate matter (PM) to add a new standard for fine particles, using fine particulates equal to and less than 2.5 micrometers in diameter (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 $\mu\text{g}/\text{m}^3$. 62 FR 38652. The health-based primary standard is designed to protect human health from elevated levels of PM_{2.5}, which have been linked to premature mortality and other important health effects. The secondary standard is designed to protect against major environmental effects of PM_{2.5} such as visibility impairment, soiling and materials damage. The following counties in this Commonwealth have been designated nonattainment for the 1997 fine particulate NAAQS: Allegheny (Liberty-Clairton), Allegheny (remainder), Armstrong, Berks, Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene, Indiana, Lancaster, Lawrence, Lebanon, Montgomery and Philadelphia.

Subsequently, on October 17, 2006, the EPA revised the primary and secondary 24-hour NAAQS for PM_{2.5} to 35 $\mu\text{g}/\text{m}^3$ from 65 $\mu\text{g}/\text{m}^3$. 71 FR 61236. On December 18, 2008, all or portions of the following counties in Pennsylvania were designated by the EPA as nonattainment for the 2006 24-hour fine particulate NAAQS: Allegheny (Liberty-Clairton), Allegheny (remainder), Armstrong (partial), Berks, Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene (partial), Indiana (partial), Lancaster, Lawrence (partial), Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Washington, Westmoreland and York.

The health effects associated with exposure to PM_{2.5} are significant. Epidemiological studies have shown a significant correlation between elevated PM_{2.5} levels and premature mortality. Other important health effects associated with PM_{2.5} exposure include 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. Individuals particularly sensitive to PM_{2.5} exposure include older adults, people with heart and lung disease and children.

A significant and growing source of PM_{2.5} emissions in this Commonwealth is from OWBs. OWBs, also referred to as outdoor wood-fired furnaces, outdoor wood-burning appliances, or outdoor hydronic heaters, are free-standing fuel-burning devices designed: (1) to burn clean wood or other approved solid fuels; (2) specifically for outdoor installation or installation in structures not normally intended for habitation by humans or domestic animals, such as garages; and (3) to heat building space or water via distribution, typically through pipes, of a fluid heated in the device, typically water or a water and antifreeze mixture. OWBs are being sold to heat homes and buildings and to produce domestic hot water.

The emissions, health effects and the nuisance factor created by the use of OWBs are a major concern to the Department of Environmental Protection (Department). The Northeast States for Coordinated Air Use Management has conducted stack tests on OWBs. Based on the test results, the average PM_{2.5} emissions from one OWB are equivalent to the emissions from 205 oil furnaces or as many as 8,000 natural gas furnaces. Cumulatively, the smallest OWB has the potential to emit almost 1 1/2 tons of PM every year. Of the estimated 155,000 OWBs sold Nationwide, 95% have been sold in nineteen states, of which Pennsylvania is one.

Unlike indoor wood stoves that are regulated by the EPA, no Federal standards exist for OWBs and the majority of them are not equipped with pollution controls. The EPA has initiated a voluntary program that encourages manufacturers of OWBs to improve air quality through

developing and distributing cleaner-burning, more efficient OWBs. Phase 1 of the program was in place from January 2007 through October 15, 2008. To qualify for Phase 1, manufacturers were required to develop an OWB model that was 70% cleaner-burning than unqualified models by meeting the EPA air emission standard of 0.6 pounds PM per million Btu heat input as tested by an independent accredited laboratory. Phase 1 Partnership Agreements ended when the Phase 2 Partnership Agreements were initiated on October 16, 2008. To qualify for Phase 2, manufacturers must develop an OWB model that is 90% cleaner-burning than pre-program, unqualified OWBs and meet the EPA air emissions standard of 0.32 pounds PM per million Btu heat output as tested by an independent accredited laboratory. The emission standard established in the proposed rulemaking would be the Phase 2 emission standard described in the EPA voluntary program.

The proposed rulemaking would help assure that the citizens of this Commonwealth will benefit from reduced emissions of PM_{2.5} from OWBs. Attaining and maintaining levels of PM_{2.5} below the health-based NAAQS is important to reduce premature mortality and other health effects associated with PM_{2.5} exposure. There are many citizen complaints regarding the operation of OWBs. This proposed rulemaking would reduce the problems associated with the operation of OWBs, including smoke, odors and burning prohibited fuels including garbage, tires, hazardous waste and the like. Reductions in ambient levels of PM_{2.5} would promote improved human and animal health and welfare, improved visibility, decreased soiling and materials damage and decreased damage to plants and trees.

While there are no Federal limits for the OWBs that would be subject to regulation under this proposed rulemaking, section 4.2 of the APCA authorizes the Board to adopt regulations more stringent than Federal requirements when the control measures are reasonably necessary to achieve and maintain the ambient air quality standards. (35 P.S. § 4004.2) These measures are reasonably necessary to attain and maintain the primary and secondary 24-hour NAAQS for PM_{2.5} in this Commonwealth.

E. Summary of Regulatory Revisions

The proposed amendments add definitions under § 121.1 for the following four new terms – “Btu,” “clean wood,” “outdoor wood-fired boiler” and “phase 2 outdoor wood-fired boiler.”

Section 123.14 (relating to outdoor wood-fired boilers) is proposed to be added. In general, under subsection (a) (relating to applicability) beginning on the effective date of the regulation, the requirements of this proposal apply to a person, manufacturer, supplier or distributor who sells, offers for sale, leases or distributes an OWB for use in this Commonwealth; a person who installs an OWB in this Commonwealth; and a person who purchases, receives, leases, owns, uses or operates an OWB in this Commonwealth.

Under subsection (b) (relating to Phase 2 outdoor wood-fired boiler), a person may not purchase, sell, offer for sale, distribute or install an outdoor wood-fired boiler for use in this Commonwealth unless it is a Phase 2 OWB.

Under subsection (c) (relating to setback requirements for Phase 2 outdoor wood-fired boilers), a person may not install a Phase 2 OWB in this Commonwealth unless the boiler is installed a minimum of 150 feet from the nearest property line.

Under subsection (d) (relating to stack height requirements for Phase 2 outdoor wood-fired boilers), a person may not install, use or operate a Phase 2 OWB in this Commonwealth unless the boiler has a permanently attached stack. The stack must meet both of the following height requirements: extend a minimum of 10 feet above the ground and extend at least two feet above the highest peak of the highest residence located within 150 feet of the outdoor wood-fired boiler.

Under subsection (e) (relating to stack height requirements for existing outdoor wood-fired boilers), a person may not use or operate an outdoor wood-fired boiler that was installed before the effective date of the regulation unless the boiler has a permanently attached stack. The stack must meet both of the following height requirements: extend a minimum of 10 feet above the ground and extend at least two feet above the highest peak of the highest residence located within 500 feet of the outdoor wood-fired boiler.

Under subsection (f) (relating to allowed fuels), a person that owns, leases, uses or operates a new or existing OWB in this Commonwealth shall use only one or more of the following fuels: clean wood; wood pellets made from clean wood; certain home heating oil, natural gas or propane fuels; or other fuel approved in writing by the Department.

Under subsection (g) (relating to prohibited fuels), a person who owns, leases, uses or operates an OWB in this Commonwealth may not burn a fuel or material in that OWB other than those fuels listed under subsection (f).

Under subsection (h) (relating to regulatory requirements), a person may not use or operate an OWB in this Commonwealth unless it complies with all applicable Commonwealth regulations and statutes.

Under subsection (i) (relating to written notice), prior to the execution of a sale or lease for a new or used OWB, the distributor, seller or lessor shall provide the prospective buyer or lessee with certain information as more fully explained under this subsection.

Under subsection (j) (relating to recordkeeping requirements), the distributor, seller or lessor shall keep the records required under subsection (i) onsite for 5 years and provide the records to the Department upon request.

In addition to the summary of the proposed rulemaking above, the Board also seeks comment on whether any final rule should include a seasonable prohibition to operate OWBs between the dates of May 1 and September 30. There is concern that while owners and operators may operate these units at a reduced capacity during the summer months, their operation may nevertheless result in increased PM emissions. Consequently, the Board would like to receive comments on whether a seasonal prohibition is an appropriate means to address this air quality issue.

F. Benefits, Costs and Compliance

Benefits

Overall, the citizens of this Commonwealth will benefit from these proposed amendments because it would help to reduce emissions of PM2.5 from OWBs. Attaining and maintaining levels of PM2.5 below the health-based NAAQS is important to reduce premature mortality and other health effects associated with PM2.5 exposure. There are also many citizen complaints regarding the operation of OWBs. Reductions in ambient levels of PM2.5 would promote improved human and animal health and welfare, improved visibility, decreased soiling and materials damage and decreased damage to plants and trees.

Compliance Costs

The cost of complying with the new requirements includes the cost of designing, manufacturing and distributing an OWB model that meets the EPA Phase 2 emission limit. Currently, there are six models available Nationally that meet the EPA Phase 2 emission limit. Non-qualifying OWB models cost between \$8,000 and \$18,000, depending on the size of the unit. It is estimated that the cleaner units may be approximately 15% more expensive because of the changes made to improve the efficiency of these units and reduce their emissions. However, most of these qualifying models are significantly more efficient which means they will burn less wood to produce the same amount of heat, reducing the cost of wood purchases.

Operators of existing OWBs would be required to ensure that the stack height complies with the requirements of the proposed rulemaking. Therefore, operators of existing OWBs may be required to extend the height of the existing stack. A review of the Hearthside Fireplace, Patio and Barbecue Center internet catalog indicated that the cost would be between \$73 and \$84 for a two-foot section of chimney pipe and between \$119 and \$145 for a four-foot section of chimney pipe.

Compliance Assistance Plan

The Department plans to educate and assist the public and regulated community in understanding the newly added requirements and how to comply with them. This will be accomplished through the Department's ongoing compliance assistance program.

Paperwork Requirements

There are some additional paperwork requirements associated with this proposed rulemaking that the regulated community would need to comply with, namely a written notice of information specified under § 123.14(i). Subsection (j) requires that the distributor, seller or lessor shall keep the records required under subsection (i) onsite for 5 years and provide the records to the Department upon request.

G. Advisory Committee Recommendation

The Department worked with the Air Quality Technical Advisory Committee (AQTAC) in the development of this proposed rulemaking. At its May 28, 2009 meeting, the AQTAC

recommended adoption of the proposed rulemaking. The Department also consulted with the Citizens Advisory Council on July 21, 2009, the Small Business Compliance Advisory Committee on July 22, 2009, and the Agricultural Advisory Board on August 19, 2009.

H. Pollution Prevention

The Federal Pollution Prevention Act of 1990 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 proposed rulemaking does not directly promote a multi-media approach. The reduced levels of PM_{2.5}, however, will benefit water quality through reduced soiling and quantities of sediment that may run off into waterways. Reduced levels of PM_{2.5} would therefore promote improved aquatic life and biodiversity, as well as improved human, animal and plant life on land.

I. Sunset Review

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.

J. Regulatory Review

Under section 5(a) of the Regulatory Review Act, 71 P.S. § 745.5(a), on October 6, 2009, the Department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the Department has provided the IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department. A copy of this material is available to the public upon request.

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

K. Public Comments

Written Comments - Interested persons are invited to submit comments, suggestions or objections regarding the proposed regulation 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 by January 4, 2010. 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 by January 4, 2010. 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@state.pa.us and must also be received by the Board by January 4, 2010. A subject heading of the proposal and a return name and address must be included in each transmission. If the sender does not receive an acknowledgement of electronic comments within 2 working days, the comments should be retransmitted to ensure receipt.

L. Public Hearings

The Environmental Quality Board will hold four public hearings for the purpose of accepting comments on this proposal. The hearings will be held as follows:

Department of Environmental Protection
Rachel Carson State Office Building
Conference Room 105
400 Market Street
Harrisburg, PA 17101

November 30, 2009
1:00 p.m.

Department of Environmental Protection
Northeast Regional Office
Susquehanna Conference Rooms A and B
2 Public Square
Wilkes-Barre, PA 18711-0790

December 1, 2009
1:00 p.m.

Cranberry Township Municipal Building
2525 Rochester Road
Cranberry Township, PA 16066-6499

December 2, 2009
1:00 p.m.

Department of Environmental Protection
Northcentral Regional Office
Goddard Conference Room
208 West Third Street, Suite 101
Williamsport, PA 17701-6448

December 3, 2009
1:00 p.m.

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 one week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to ten 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 Environmental Quality Board at 717-787-4526 or through the

Pennsylvania AT&T Relay Service at 1-800-654-5984 (TDD) to discuss how the Board may accommodate their needs.

JOHN HÄNGER
Chairman

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:

* * * * *

Btu—British thermal unit—The amount of thermal energy necessary to raise the temperature of 1 pound of pure liquid water by 1° F. at the temperature at which water has its greatest density (39° F.).

* * * * *

Clean wood—The term includes the following:

- (i) Wood that contains no paint, stains or other types of coatings.
- (ii) Wood that has not been treated with preservatives, including copper chromium arsenate, creosote, pentachlorophenol or the like.

* * * * *

Outdoor wood-fired boiler—

- (i) A fuel-burning device that:
 - (A) Is designed to burn, or is capable of burning, clean wood or other fuels listed under § 123.14(f) (relating to outdoor wood-fired boilers).
 - (B) The manufacturer specifies for outdoor installation or installation in structures not normally intended for habitation by humans or domestic animals, including structures like garages and sheds.
 - (C) Heats building space or fluid, or both, through the distribution, typically through pipes, of a fluid heated in the device, typically water or a mixture of water and antifreeze.

(ii) The fuel-burning device may also be known as:

(A) Outdoor wood-fired furnace.

(B) Outdoor wood-burning appliance.

(C) Outdoor hydronic heater.

(D) Outdoor water stove.

* * * * *

Phase 2 outdoor wood-fired boiler—An outdoor wood-fired boiler that has been certified or qualified by the EPA as meeting a particulate matter emission limit of 0.32 pounds per million Btu output and is labeled accordingly.

* * * * *

CHAPTER 123. STANDARDS FOR CONTAMINANTS

PARTICULATE MATTER EMISSIONS

[Editor's note: Section 123.14 is new and printed in regular type to enhance readability.]

§ 123.14. Outdoor wood-fired boilers.

(a) *Applicability.*

(1) Beginning on _____ [Editor's note: The blank refers to the effective date of adoption of this proposed rulemaking.] this section applies to the following:

(i) A person, manufacturer, supplier or distributor who sells, offers for sale, leases or distributes an outdoor wood-fired boiler for use in this Commonwealth.

(ii) A person who installs an outdoor wood-fired boiler in this Commonwealth.

(iii) A person who purchases, receives, leases, owns, uses or operates an outdoor wood-fired boiler in this Commonwealth.

(2) This section does not apply to a person, manufacturer, supplier or distributor who sells, offers for sale, leases or distributes in this Commonwealth an outdoor wood-fired boiler that does not comply with the Phase 2 outdoor wood-fired boiler particulate matter standards if the person, manufacturer, supplier or distributor demonstrates both of the following:

(i) The outdoor wood-fired boiler is intended for shipment and use outside of this Commonwealth.

(ii) The person, manufacturer, supplier or distributor has taken reasonably prudent precautions to ensure that the outdoor wood-fired boiler is not distributed to or within this Commonwealth.

(b) *Phase 2 outdoor wood-fired boiler.*

(1) A person may not sell, offer for sale, distribute or install an outdoor wood-fired boiler for use in this Commonwealth unless it is a Phase 2 outdoor wood-fired boiler.

(2) A person may not purchase, lease or receive an outdoor wood-fired boiler for use in this Commonwealth unless it is a Phase 2 outdoor wood-fired boiler.

(c) *Setback requirements for Phase 2 outdoor wood-fired boilers.* A person may not install a Phase 2 outdoor wood-fired boiler in this Commonwealth unless the boiler is installed a minimum of 150 feet from the nearest property line.

(d) *Stack height requirements for Phase 2 outdoor wood-fired boilers.* A person may not install, use or operate a Phase 2 outdoor wood-fired boiler in this Commonwealth unless the boiler has a permanently attached stack. The stack must meet both of the following height requirements:

(1) Extend a minimum of 10 feet above the ground.

(2) Extend at least two feet above the highest peak of the highest residence located within 150 feet of the outdoor wood-fired boiler.

(e) *Stack height requirements for existing outdoor wood-fired boilers.* A person may not use or operate an outdoor wood-fired boiler that was installed before _____ [Editor's note: The blank refers to the effective date of adoption of this proposed rulemaking.] unless the boiler has a permanently attached stack.

(1) The stack must meet both of the following height requirements:

(i) Extend a minimum of 10 feet above the ground.

(ii) Extend at least two feet above the highest peak of the highest residence located within 500 feet of the outdoor wood-fired boiler.

(2) If the existing outdoor wood-fired boiler is a Phase 2 outdoor wood-fired boiler, subsection (d) applies.

(f) *Allowed fuels.* A person that owns, leases, uses or operates a new or existing outdoor wood-fired boiler in this Commonwealth shall use only one or more of the following fuels:

(1) Clean wood.

(2) Wood pellets made from clean wood.

(3) Home heating oil, natural gas or propane that:

(i) Complies with all applicable sulfur limits.

(ii) Is used as a starter or supplemental fuel for dual-fired outdoor wood-fired boilers.

(4) Other fuel approved in writing by the Department.

(g) *Prohibited fuels.* A person who owns, leases, uses or operates an outdoor wood-fired boiler in this Commonwealth may not burn a fuel or material in that outdoor wood-fired boiler other than those fuels listed under subsection (f).

(h) *Regulatory requirements.* A person may not use or operate an outdoor wood-fired boiler in this Commonwealth unless it complies with all applicable Commonwealth regulations and statutes including the following:

(1) 25 Pa. Code § 121.7 (relating to prohibition of air pollution).

(2) 25 Pa. Code § 123.1 (relating to prohibition of certain fugitive emissions).

(3) 25 Pa. Code § 123.31 (relating to limitations).

(4) 25 Pa. Code § 123.41 (relating to limitations).

(5) Section 8 of the act (35 P.S. § 4008) (relating to unlawful conduct).

(6) Section 13 of the act (35 P.S. § 4013) (relating to public nuisances).

(i) *Written notice.*

(1) Prior to the execution of a sale or lease for a new or used outdoor wood-fired boiler, the distributor, seller or lessor shall provide the prospective buyer or lessee with a copy of this section and a written notice that includes the following:

(i) An acknowledgement that the buyer was provided with a copy of this section.

(ii) A written list of the fuels allowed under 25 Pa. Code § 123.14(f) (relating to outdoor wood-fired boilers).

(iii) A written statement that a person who owns, leases, uses or operates an outdoor wood-fired boiler in this Commonwealth may not burn a fuel or material in that outdoor wood-fired boiler other than those fuels listed under 25 Pa. Code § 123.14(f).

(iv) A written statement that even if the requirements set forth in this section are met, the installation and operation of the outdoor wood-fired boiler may be subject to other applicable Commonwealth regulations and statutes including the regulations and statutes listed under 25 *Pa. Code* § 123.14(h).

(v) A written statement that even if the requirements set forth in this section are met, the installation and operation of the outdoor wood-fired boiler may be subject to local regulations or local stack height or setback requirements that will further limit or prohibit the use of the purchased or leased outdoor wood-fired boiler.

(vi) A written statement that the stack height and setback requirements provided under this section may not be adequate in some areas of this Commonwealth due to terrain that could render the operation of the outdoor wood-fired boiler a nuisance or public health hazard.

(2) The written notice must be signed and dated by the buyer or lessee and the distributor, seller or lessor when the sale or lease of the outdoor wood-fired boiler is completed. The written notice must include the following:

(i) The name, address and telephone number of the buyer or lessee.

(ii) The name, address and telephone number of the distributor, seller or lessor.

(iii) The location where the outdoor wood-fired boiler will be installed.

(iv) The make, model name or number and date of manufacture of the outdoor wood-fired boiler.

(j) *Recordkeeping requirements.* The distributor, seller or lessor shall keep the records required under subsection (i) onsite for 5 years and provide the records to the Department upon request.



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building

P.O. Box 2063

Harrisburg, PA 17105-2063

October 6, 2009

Policy Office

717-783-8727

Kim Kaufman, Executive Director
Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17101

Re: Proposed Rulemaking: Outdoor Wood-Fired Boilers
(25 Pa. Code, Chapters 121, and 123)

Dear Mr. Kaufman:

Enclosed is a copy of a proposed regulation for review and comment by the Independent Regulatory Review Commission pursuant to Section 5(a) of the Regulatory Review Act. The proposed rulemaking is scheduled for publication in the *Pennsylvania Bulletin* on October 17, 2009, with a 60-day public comment period and four public hearings. The Environmental Quality Board (EQB) adopted this proposal on September 15, 2009.

This proposed rulemaking adds requirements at 25 Pa Code Chapter 123 for the operation of outdoor wood-fired boilers (OWBs), also commonly referred to as outdoor wood-fired furnaces, outdoor wood-burning appliances, or outdoor hydronic heaters. Unlike indoor woodstoves that are regulated by the EPA, no Federal standards exist for OWBs. The majority of OWB models are not equipped with air pollution controls and therefore generate air pollution in far greater quantities than indoor woodstoves, even when they are operated according to manufacturer's specifications. The emissions are intensified if the OWB is improperly fired or used to burn waste. Air pollution generated from the OWBs not only effect human health, but are also a source of many odor and nuisance complaints.

In lieu of Federal standards, the EPA initiated a voluntary program that encourages manufacturers of OWBs to improve air quality through developing and distributing cleaner-burning, more efficient OWBs. Phase 1 of the program was in place from January 2007 through October 15, 2008, and included EPA certification of OWB models that demonstrated they were 70% cleaner-burning than unqualified models by meeting the EPA's air emissions level of 0.6 pounds of PM/mmBtu heat input. Phase 2 of the program was recently announced and includes EPA certification of OWBs that meet a particulate matter emission limit of 0.32 pounds per million Btu output. In comparison, most older model OWBs emit about 2.0 pounds of particulate matter per million Btu (PM/mmBtu) heat input.

The proposed rulemaking establishes provisions that would prohibit a person, manufacturer, supplier or distributor from selling, offering for sale, distributing, installing, purchasing, leasing or receiving an OWB for use in Pennsylvania unless it is a Phase 2 OWB. This prohibition would not extend to OWBs that are intended for shipment and use outside of this Commonwealth. The proposed



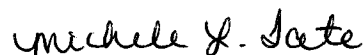
rulemaking also establishes setback and stack height requirements for Phase 2 OWBs and restricts the types of fuel that may be used in an OWB.

The additional particulate matter emission reductions that will occur as a result of this proposal are reasonably necessary as part of this Commonwealth's efforts to attain and maintain the 1997 and 2006 health-based 24-hour National Ambient Air Quality Standard for fine particulates. The final form regulation, if adopted by the EQB, will be submitted to the EPA as a revision to the State Implementation Plan. On May 28, 2009, the Department presented the draft proposed rulemaking to the Air Quality Technical Advisory Committee, who unanimously concurred with the Department's recommendation to seek Board approval of the proposed rulemaking.

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

Please contact me at 717-783-8727 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

Enclosure



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF POLICY

TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO
THE REGULATORY REVIEW ACT

I.D. NUMBER: 7- 444

SUBJECT: Outdoor wood-fired boilers

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

FILING OF REGULATION

DATE

SIGNATURE

DESIGNATION

10-6-09

D. Neuk

Majority Chair, HOUSE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10/6/09

M. Bevan

Minority Chair, HOUSE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10-6-09

D. Castle

Majority Chair, SENATE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10-6-09

A. Rybakczyk

Minority Chair, SENATE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10/6/09

J. Gillett

INDEPENDENT REGULATORY REVIEW COMMISSION

ATTORNEY GENERAL (for Final Omitted only)

10/6/09

M. Lattin

LEGISLATIVE REFERENCE BUREAU (for Proposed only)

