Notice of Proposed Rulemaking
Department of Environmental Protection
Environmental Quality Board
(25 *Pa. Code* Chapters 121, 123 and 139)
Commercial Fuel Oil Sulfur Limits for Combustion Units

Preamble

The Environmental Quality Board (Board) proposes to amend Chapters 121, 123 and 139 (relating to general provisions; standards for contaminants; and sampling and testing) to read as set forth in Annex A.

The proposed rulemaking would amend § 123.22 (relating to combustion units) to lower the allowable sulfur content of commercial fuel oil for use in combustion units and replace the existing area-specific sulfur content limits for commercial fuel oils with a statewide sulfur limit; add provisions for sampling and testing, and recordkeeping and reporting, under § 123.22; revise the sampling and testing requirements in Chapter 139; and add definitions to § 121.1 (relating to definitions) for two new terms, and amend the definitions of eight existing terms, to provide clarity and support the amendments to Chapter 123.

This proposal was adopted by the Board at its meeting of July 13, 2010.

A. Effective Date

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as final rulemaking.

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 Kristen Furlan, 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 proposal appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposal 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

The proposal 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 CAA.

D. Background and Purpose

Combustion of sulfur-containing commercial fuel oils releases sulfur dioxide (SO_2) emissions, which contribute to the formation of regional haze and fine particulate matter (PM2.5), both of which are serious public welfare and human health threats. Regional haze is visibility impairment that is produced by a multitude of sources and activities that emit fine particles and their precursors and which are located across a broad geographic area. Fine particles have a diameter smaller than 2.5 micrometers and are also called PM2.5. Particles affect visibility through the scattering and absorption of light, and PM2.5 – particles similar in size to the wavelength of light – are most efficient, per unit of mass, at reducing visibility. Regional haze affects urban and rural areas, including National parks, forests, and wilderness areas (Federal "Class I" areas).

Sulfur dioxide is the most significant pollutant involved in the formation of regional haze. Sulfur dioxide emissions oxidize in the atmosphere to form sulfate particles. Visibility impairment, including regional haze, in rural areas of eastern North America is mostly due to sulfate particles, according to the 2006 "Contribution Assessment" prepared by the Mid-Atlantic/Northeast Visibility Union (MANE-VU). *Contributions to Regional Haze in the Northeast and Mid-Atlantic United States*, Mid-Atlantic/ Northeast Visibility Union, (MANE-VU) Contribution Assessment, August 2006, p. 2-4.

In 1977, Congress amended the Federal Clean Air Act (CAA) by adding Section 169A (relating to visibility protection for Federal class I areas) to set a National goal of the "prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution." See 42 USCA § 7491(a)(1). Congress amended the CAA in 1990, adding Section 169B (relating to visibility) to authorize further research and regular assessments of the progress made so far toward the National visibility goals. See 42 USCA § 7492.

The National Academy of Sciences concluded in 1993 that the average visual range in the eastern United States has been reduced to approximately 30 kilometers or one-fifth of the visual range that would exist under natural conditions. (Committee on Haze in National Parks and Wilderness Areas, National Research Council, National Academy of Sciences, *Protecting Visibility in National Parks and Wilderness Areas,* (Washington, D.C. 1993).)

On July 1, 1999, the U.S. Environmental Protection Agency (EPA) published its initial regulations setting forth states' requirements to reduce regional haze (64 FR 35714). The regulations aim to achieve the National visibility goal set by the CAA by 2064. The EPA published final regional haze regulations on July 6, 2005 (70 FR 39104). The regulations can be found at 40 CFR Part 51, Subpart P (relating to protection of visibility) (40 CFR §§ 51.300-51.309). EPA's regulations require all states, even those that do not contain a Federal Class I area, to submit a revision to their State Implementation Plan (SIP) containing emission reduction strategies to improve visibility in Class I areas that their emissions affect.

The EPA regulations require states to demonstrate reasonable progress toward meeting the National goal of a return to natural visibility conditions by 2064. States with Class I areas must establish reasonable progress goals, expressed in deciviews, for visibility improvement at each Class

I area. (The lower the deciview value, the better the perception of visibility.) The first set of reasonable progress goals must be met through measures contained in each state's long-term strategy covering the period from the present until 2018. A long-term strategy includes enforceable emissions limitations, compliance schedules and other measures as necessary to achieve the reasonable progress goals.

States are required to evaluate progress toward reasonable progress goals every five years to assure that emissions controls are on track with emissions reduction forecasts in the SIP. The first progress report is due 5 years from the submittal of the initial implementation plan. If emissions controls are not on track to meet SIP forecasts, then a state would need to take action to assure emissions controls by 2018 would be consistent with the SIP or to revise the SIP to be consistent with the revised emissions forecast.

This Commonwealth is a member of the MANE-VU, established in 2000 as the regional planning organization to help the Northeast states plan for their Regional Haze SIP submittals. The MANE-VU states are Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and the District of Columbia. Native American tribes in the region, the EPA, the U.S. Fish and Wildlife Service and the U.S. Forest Service are also members.

Although this Commonwealth has no mandatory Class I Federal areas, emissions from this Commonwealth are considered to impact the seven mandatory Class I Federal areas in the MANE-VU region. In addition, the emissions from this Commonwealth are considered to impact the Dolly Sods Wilderness Area in West Virginia and Shenandoah National Park in Virginia.

MANE-VU evaluated several large source categories for their contribution to the MANE-VU SO_2 emission inventory, including electric generating units (EGUs), residential and commercial oil heat burners and furnaces, and industrial/commercial/institutional (ICI) boilers. The Northeast States for Coordinated Air Use Management (NESCAUM) performed this evaluation for MANE-VU in 2005 using 2002 data, which was the most current information available at the time of the study. While EGUs are by far the largest source of SO_2 emissions in the MANE-VU region at 71%, SO_2 emissions from the burning of sulfur-containing commercial fuel oil in residential and commercial combustion units, combined, and in ICI boilers, each contribute about 7% to the MANE-VU SO_2 emission inventory, for a total of 14%. In this Commonwealth, commercial fuel oil combustion in residential and commercial combustion units contributes between 2% and 3% of SO_2 emissions in the MANE-VU region, depending on the season. The NESCAUM evaluation indicates that the anticipated annual SO_2 emission reduction benefits in this Commonwealth would be approximately 29,000 tons when the proposed low-sulfur content limits for commercial fuel oils are fully implemented.

MANE-VU identified the reduction of sulfur limits in commercial fuel oils used in residential and commercial combustion units as a cost effective strategy for reducing regional haze and adopted a statement in which member states agreed to pursue this strategy. The Department has reviewed the NESCAUM studies and MANE-VU recommendations and determined that the recommended low-sulfur content limits for commercial fuel oil are appropriate measures to be pursued in this Commonwealth as part of the regional strategy to improve visibility. Lowering the sulfur content in commercial fuel oil sold for and used in combustion units in this Commonwealth would contribute to

the MANE-VU goals of improving visibility in the region's mandatory Class I Federal areas. Actions taken as part of this Commonwealth's obligations for reducing haze on a regional level would also improve visibility in this Commonwealth's recreational and urban areas.

The existence of PM2.5 in the atmosphere not only produces regional haze but also has significant adverse health effects. Epidemiological studies have shown a significant correlation between elevated PM2.5 levels and premature mortality. Other important health effects associated with PM2.5 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 PM2.5 exposure include older adults, people with heart and lung disease and children.

On July 18, 1997, the EPA set health-based (primary) and welfare-based (secondary) PM2.5 annual National Ambient Air Quality Standards (NAAQS) at a level of 15 micrograms per cubic meter (μg/m3) (62 FR 38652); the 24-hour NAAQS was subsequently revised in October 2006 to a concentration of 35 μg/m3. 71 FR 61144 (October 17, 2006). The EPA has designated the following counties or portions thereof as being in nonattainment of either the annual or the 24-hour PM2.5 standard or both: Allegheny (Liberty-Clairton), Allegheny (remainder), Armstrong, Berks, Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene, Indiana, Lancaster, Lawrence, Lebanon, Montgomery and Philadelphia.

In a March 2010 draft report prepared as part of the EPA's periodic review of NAAQS, the EPA concluded that existing standards for fine particles are insufficient to protect public health and reduce the pollutant's impact on visibility. The draft report recommends that the EPA consider setting significantly more protective standards, based on the fact that recent research into the health effects of fine particles calls into question the adequacy of the current suite of standards. See the EPA's *Policy Assessment for the Review of the Particulate Matter National Ambient Air Quality Standards: First External Review Draft,* March 2010. The draft report also recommends the agency consider setting a secondary standard for PM2.5 to protect visibility.

Sulfur dioxide emissions also contribute to the formation of acid rain. Both acid rain and PM2.5 contribute to agricultural crop and vegetation damage, and degradation of the Chesapeake Bay. Combustion of low-sulfur content commercial fuel oil would contribute to reducing the incidences of these adverse effects in this Commonwealth.

There are several important co-benefits of this proposed rulemaking. Emissions of nitrogen oxides (NOx), which contribute to a number of public health and environmental problems in the Northeast, including unhealthy levels of PM2.5 and ground-level ozone, would also decrease with the use of low-sulfur content commercial fuel oil due to furnace and boiler efficiency improvements. Emissions of carbon dioxide, a greenhouse gas, should also be reduced since with improved efficiency, overall commercial fuel oil consumption should decrease.

Ozone is a serious human and animal health and welfare threat, causing or contributing to respiratory illnesses and decreased lung function, agricultural crop loss, visible foliar injury to sensitive plant species, and damage to forests, ecosystems and infrastructure. In March 2008, the EPA lowered the ozone NAAQS from 0.080 parts per million (ppm) to 0.075 ppm averaged over 8 hours to provide even greater protection for children, other at-risk populations and the environment

against the array of ozone-induced adverse health and welfare effects. 73 FR 16436 (March 27, 2008). As required by the CAA, the Commonwealth submitted recommendations to the EPA in 2009 to designate 29 counties as nonattainment for the 2008 8-hour ozone NAAQS. However, the EPA has reconsidered the 2008 ozone NAAQS and on January 19, 2010, published a proposed rulemaking to set a more protective 8-hour primary standard at a lower level within the range of 0.060-0.070 ppm; the final revised ozone standard is expected in August 2010. See 75 FR 2938. Should EPA set the standard at the lowest end of this range, all monitors measuring ozone in this Commonwealth could violate the NAAQS.

This proposed rulemaking is designed to lower the allowable sulfur content limits of commercial fuel oils used in oil-burning combustion units in this Commonwealth and to replace the existing area-specific sulfur content limits for commercial fuel oils with a statewide sulfur limit. The rulemaking would reduce the levels of sulfur in commercial fuel oils used in residential and commercial oil heat burners and furnaces, and in ICI boilers. Section 123.22 regulates numbers (Nos.) 2, 4, 5 and 6 commercial fuel oils. No. 2 and lighter commercial fuel oil is generally used for residential and commercial heating. Nos. 4, 5, 6 and heavier commercial fuel oils are used in ICI boilers.

The proposed rulemaking would apply to the owner or operator of refineries, pipelines, terminals, retail outlet fuel storage facilities, and ultimate consumers, including commercial and industrial facilities, facilities with a unit burning regulated fuel oil to produce electricity, and domestic home heaters. The requirements would be focused on persons or entities that "offer for sale, deliver for use, exchange in trade or permit the use of commercial fuel oil." These are the suppliers and operations selling to the ultimate consumer. No recordkeeping or reporting would be required of the ultimate consumer receiving commercial fuel oil for use at a private residence or an apartment or condominium building that houses private residents; all they would need to do is buy and use compliant commercial fuel oil.

The Department consulted with the Air Quality Technical Advisory Committee (Committee) on the proposed rulemaking on February 18, 2010. The Committee unanimously concurred in the Department's recommendation to present the proposed amendments, with suggested revisions, to the Board for approval. The Department also consulted with the Citizens Advisory Council, Small Business Compliance Advisory Committee and Agricultural Advisory Board.

E. Summary of Regulatory Requirements

This proposed rulemaking would amend definitions of eight terms in § 121.1. The proposed rulemaking would amend the definitions of "commercial fuel oil" and "noncommercial fuel" to synchronize them. The proposal would expand the definition of "carrier" so that it applies when commercial fuel oil is carried. The proposal would amend the definition of "distributor" so that it applies when commercial fuel oil is distributed and to broaden the list of transferees. The proposal would similarly expand the definitions of "retail outlet," and "terminal." The proposal would provide more specificity to the definitions of "transferee" and "transferor" by listing examples of persons and entities included in the definition. The proposed rulemaking would add the terms "ASTM" and "ultimate consumer" because these terms are used elsewhere in the rulemaking.

The proposed rulemaking would amend each of the subsections of § 123.22 and add two new subsections at the end. Subsection (a) applies to nonair basin areas. (Air basins are defined geographically in § 121.1.) The proposed amendments to subsection (a) would make minor editorial revisions to the general provision in paragraph (1). The proposed rulemaking would reduce the allowable sulfur limits of commercial fuel oil found in paragraph (2), in proposed subparagraph (i), to 15 ppm for No. 2 and lighter commercial fuel oils and to 0.25% sulfur content by weight for No. 4 commercial fuel oil and 0.5% sulfur content by weight for No. 5, 6 and heavier commercial fuel oils beginning May 1, 2012. On and after those dates, no person would be authorized to offer for sale, deliver for use, exchange in trade or permit the use of a non-complying commercial fuel oil in a nonair basin.

Proposed amendments to paragraph (2) would contain two exceptions. The first would be found in proposed subparagraph (ii), which would allow commercial fuel oil that is stored in this Commonwealth by the ultimate consumer prior to the applicable compliance date listed above and which met the applicable maximum sulfur content at the time it was stored to be used in this Commonwealth after the applicable compliance date. The second would be found in proposed subparagraph (iii), which would authorize the Department to temporarily suspend or increase the applicable limit or percentage by weight of sulfur content of a commercial fuel oil if the Department were to determine that an insufficient quantity of compliant commercial fuel oil were reasonably available in a nonair basin area. Proposed subparagraph (iv) would authorize the Department to limit a suspension or increase granted under subparagraph (iii) to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available. Proposed subparagraph (v) would specify that the sulfur content limit for No. 2 and lighter commercial fuel oil may not exceed 500 ppm if a temporary increase in the applicable limit of sulfur content is granted under subparagraph (iii).

The proposed rulemaking would amend the equivalency provision of paragraph (3) to provide greater clarity. The equivalency provision requires an equivalent amount of emission reductions when equipment or a process is used to reduce sulfur emissions from the burning of a fuel with a higher sulfur content than that specified in paragraph (2).

The proposed rulemaking would make similar amendments to the remaining four subsections of § 123.22, which apply as follows: subsection (b) applies to the Erie, Harrisburg, York, Lancaster, and Scranton, Wilkes-Barre air basins; subsection (c) applies to the Allentown, Bethlehem, Easton, Reading, Upper Beaver Valley and Johnstown air basins; subsection (d) applies to the Allegheny County, Lower Beaver Valley and Monongahela Valley air basins; and subsection (e) applies to the Southeast Pennsylvania air basin. Each of these air basins is defined in § 121.1. In subsection (d), the proposed rulemaking would add the commercial fuel oil limits and percentages, as well as the equivalency provision, as this subsection did not previously contain them.

The proposed rulemaking would add subsection (f) to § 123.22, establishing sampling and testing requirements for refinery and terminal owners and operators to ensure compliance with the allowable sulfur limits for commercial fuel oil. A refinery owner or operator who produces commercial fuel oil intended for use or used in this Commonwealth on or after the applicable compliance dates would be required to sample, test and calculate the sulfur content of each batch of the commercial fuel oil. A terminal owner or operator would be required to develop and implement

written procedures, including procedures for commercial fuel oil sampling and testing, which would be required to be made available to the Department upon request.

The proposed rulemaking would add subsection (g) to § 123.22, establishing recordkeeping and reporting requirements applicable to all transferors and transferees in the manufacture and distribution chain for commercial fuel oil, from the refinery owner or operator to the ultimate consumer. This subsection would require each transferor to provide each transferee with an electronic or paper record containing specified information each time the physical custody of, or title to, a shipment of commercial fuel oil were to change hands. The transferors and transferees would be required to maintain the records for two years and provide them to the Department upon request. The subsection would also require refinery and terminal owners and operators to maintain the records developed under proposed subsection (f) for two years and to provide them to the Department upon request. Under this proposed subsection, private residence ultimate consumers would not be required to maintain records; nor would ultimate consumers who were owners of apartment or condominium buildings housing private residents if the transfer or use of the commercial fuel oil occurs for use at the building. Other ultimate consumers would be required to maintain the record provided to them in the transfer of the commercial fuel oil.

The proposed rulemaking would amend § 139.4 (relating to references) to update six of the applicable sulfur method references and to add two new sulfur method references.

The proposed rulemaking would amend § 139.16 (relating to sulfur in fuel oil) to add cross-references to the two new sulfur method references in § 139.4.

This proposed control measure is an important part of the Commonwealth's efforts to meet the 2018 reasonable progress goals for reducing regional haze established by the Commonwealth in consultation with the member states of MANE-VU and is also reasonably necessary to attain and maintain the PM2.5 NAAQS in this Commonwealth. The proposed rulemaking, if adopted as a final regulation, will be submitted to the EPA as a revision to the SIP.

F. Benefits, Costs and Compliance

Benefits

Implementation of the proposed control measure would benefit the health and welfare of the approximately 12 million human residents and numerous animals, and crops, vegetation and natural areas, of this Commonwealth by reducing the ambient levels of SO_2, resulting in reductions in regional haze and PM2.5. There are also important co-benefits of this proposed rulemaking. Emissions of NOx, which contribute to unhealthy levels of PM2.5 and ground-level ozone, would also decrease with the use of low-sulfur content commercial fuel oil due to furnace and boiler combustion efficiency improvements. Emissions of carbon dioxide, a greenhouse gas, should also be reduced since with improved combustion efficiency, overall commercial fuel oil consumption should decrease.

Commercial fuel oil users benefit, too. According to the U.S. Energy Information Administration (EIA), State Energy Profiles, approximately 26% of the households in this Commonwealth use No. 2 commercial fuel oil for space heat. Low-sulfur content commercial fuel oil

has the potential to improve furnace and boiler combustion efficiency by reducing fouling rates of furnace and boiler heat exchangers and other components. Reduced boiler and furnace fouling rates translate directly into lower vacuum-cleaning costs for fuel oil companies and homeowners by extending the service intervals. For example, according to a NESCAUM study, using a median hourly service cost of $72.50 per hour for vacuum-cleaning a furnace and changing No. 2 commercial fuel oil from a sulfur content of 2500 ppm to 500 ppm would save $29,000 a year per 1000 homes, or $29.00 annually per home in the United States. (See NESCAUM report: *Low Sulfur Heating Oil in the Northeast States: An Overview of Benefits, Costs and Implementation Issues*, December 2005, pages 3-2 and 3-3.) Further, the availability of low-sulfur content commercial fuel oil would enable the introduction of highly efficient advanced technology condensing furnaces. A lower sulfur content commercial fuel oil would also increase the number of clean fuel types available to consumers.

The commercial fuel oil industry also benefits. A requirement for lower sulfur content No. 2 commercial fuel oil would benefit distributors of commercial fuel oil by increasing their ability to compete with natural gas, a cleaner fuel than today's No. 2 commercial fuel oil. Another benefit is that consistency of No. 2 commercial fuel oil sulfur content limits with highway and nonroad, locomotive and marine (NRLM) transportation diesel sulfur content limits would help refinery owners and operators, distributors, carriers and owners and operators of commercial fuel oil and transportation diesel fuel terminals minimize the number of tanks and trucks needed. No. 2 commercial fuel oil could be combined with NRLM transportation diesel fuel in the same tanks and trucks. The sulfur level of 15 ppm in the proposed rulemaking for No. 2 commercial fuel oil is consistent with the level that is or will be required in highway and NRLM transportation diesel fuels. The Federal final rule for *Control of Air Pollution from New Motor Vehicles: Heavy Duty Engines and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*, published on January 18, 2001, requires all refiners to produce 100% of their highway diesel fuel to meet the sulfur content limit of 15 ppm beginning June 1, 2010. See 66 FR 5002, p. 5067. The Federal final rule for *Control of Air Emissions from Nonroad Diesel Engines and Fuel*, published on June 29, 2004, requires the sulfur content limit for nonroad transportation diesel fuel be 15 ppm beginning June 1, 2010. See 69 FR 38958 at p. 39039. The sulfur content limit for locomotive and marine (except large ocean-going vessels) diesel fuel will be 15 ppm beginning June 1, 2012. See 69 FR p. 39039. Furthermore, since sulfur content limits for regulated commercial fuel oils would now be Commonwealth-wide rather than area-specific, compliance and recordkeeping would be simplified for the petroleum refining and distribution companies.

Compliance Costs

The proposed rulemaking would affect the owners and operators of refineries, distributors and carriers of commercial fuel oils; owners and operators of commercial fuel oil terminals; ICI boiler owners and operators; and anyone who uses commercial fuel oils in this Commonwealth.

There are five refineries in this Commonwealth, owned by four companies. The products of all five refineries would be affected by the proposed rulemaking. Owners and operators of refineries outside this Commonwealth would be indirectly affected if they supply distributors that sell commercial fuel oil in this Commonwealth. The Department believes that this sophisticated industry has the technical capacity for implementing the program because sulfur limits have been established in motor fuels for 30 years.

There are 120 fuel oil terminal operations operated by 38 different companies, and 737 distributors of petroleum products, in this Commonwealth. Not all of these operations handle commercial fuel oil. Major distributors in this Commonwealth also operate terminals. While the size of distributor operations ranges from large to small, members of the petroleum distribution industry as a whole have been regulated for many years. Existing systems to track the quantity and composition of fuel are of long standing for purposes of compliance with both environmental and tax regulations.

End-users of commercial fuel oil range from large industrial users to homeowners. There are approximately 1.32 million households in this Commonwealth that may use commercial fuel oil for residential heating (5.08 million households * 26% of households). The EIA State Energy Profile estimates that 26% of homes in this Commonwealth use commercial fuel oil for space heat.

Fuel combustion at many ICI sources is already regulated by the Department under its permit program; these sources would be required to comply with the proposed rulemaking, which retains (with modification) the equivalency provisions of the existing regulation as an alternative compliance mechanism. The equivalency provisions allow the use of equipment or a process to control emissions to the same level as would result from the use of a compliant commercial fuel oil. This choice would most likely only occur if the cost of control were less than the cost of the purchase of compliant commercial fuel oil.

Market forces and regulations for transportation-related diesel fuels in both the United States and internationally will be the major forces affecting this industry, since the use of commercial fuel oil for residential heating and ICI boilers is a very small portion of diesel fuel consumption. No. 2 commercial fuel oil will be identical in sulfur content level to nonroad transportation diesel fuel in 2012, if the proposed rulemaking compliance date of May 1, 2012, is implemented.

In a 2008 report entitled, "Northeast Heating Oil Assessment," the National Oilheat Research Alliance (NORA) estimated that there would be a 6.3 to 6.8 cents per gallon (cents/gal) incremental production cost for 500 ppm vs. 2500 ppm sulfur content home heating oil (No. 2 commercial fuel oil), including capital costs. Costs are estimated to be as much as 8.9 cents/gal for 15 ppm sulfur content vs. 2500 ppm. However, where refinery owners and operators have desulfurization capabilities, the incremental cost of producing 15 ppm sulfur vs. 2500 ppm home heating oil will be less than 5 cents/gal. Note that these are costs to the producers; prices to the ultimate consumer will be influenced by factors in addition to the cost of reducing the sulfur content in the fuel oil.

Furnace and boiler maintenance costs for consumers would be lower due to less fouling of their combustion units. According to NORA, although low-sulfur content commercial fuel oil may cost a few cents per gallon more, savings on maintenance costs would help defray that impact. Decreased fouling improves efficiency of the combustion unit, which results in lower fuel usage.

Compliance Assistance Plan

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

Paperwork Requirements

The proposed regulation would require that, beginning with the refinery owner or operator who sells or transfers commercial fuel oil and ending with the ultimate consumer, each time the physical custody of or title to a shipment of commercial fuel oil changes hands the transferor would be required to provide the transferee with an electronic or paper record of the transaction. Each affected person would be required to keep the records in electronic or paper format for 2 years, except those ultimate consumers located at a private residence. No recordkeeping or reporting would be required of ultimate consumers at private residences or apartment complexes and condominiums; all they need to do is buy and use compliant commercial fuel oil. The Department conferred with industry on normal industry practices and took those practices into account in crafting the paperwork requirements.

G. Pollution Prevention

The Federal Pollution Prevention Act of 1990 (42 USCA §§ 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.

This proposed rulemaking would prevent emissions of SO_2 and NOx air pollutants by requiring a lower amount of sulfur in commercial fuel oil used in this Commonwealth, thereby reducing regional haze and ambient levels of PM2.5 in this Commonwealth and throughout the Northeast. The proposed rulemaking would not require add-on controls, although existing provisions allow the use of noncompliant fuel if the emissions are equivalent to those obtained with compliant commercial fuel oil.

H. 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.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on ___(blank)____, 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 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, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days following 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.

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 by ___(blank)___ (*Editor's note:* The date must allow for 60 days after publication in the Pennsylvania Bulletin and 30 days after the third hearing). 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 ___(blank)___ (*Editor's note:* Same date as preceding blank) . 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 ___(blank)___. A subject heading of the proposal 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 Environmental Quality Board will hold public hearings in Harrisburg, Norristown and Pittsburgh for the purpose of accepting comments on this proposal. The hearings will be held at ___ p.m. on the following dates:

_____(blank)_____

_____(blank)_____
_____(blank)_____

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 users) or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs.

JOHN HANGER
Chairperson