



Bureau of Air Quality

Final Rulemaking: Revision of Sulfur Limits in No. 2 and Lighter Commercial Fuel Oil (25 Pa. Code Chapter 123)

Environmental Quality Board Meeting

January 21, 2020

Tom Wolf, Governor

Patrick McDonnell, Secretary

Basis of Final-form Rulemaking

1977 Clean Air Act (CAA) Amendments declared a national goal to prevent future visibility impairment and remedy existing impairment in national parks, wilderness areas and wildlife refuges (“Class I areas”).

The U.S. Environmental Protection Agency (EPA) promulgated its Regional Haze Rule in 1999, which called for states, tribes and federal agencies to work together to improve visibility in the 156 Class I areas.

The Mid-Atlantic/Northeast Visibility Union (MANE-VU) was established in 2001 to help the Northeast states plan for meeting regional haze requirements.

Basis of Final-form Rulemaking

Predominant cause of haze pollution in the MANE-VU region is sulfate particles, which are formed from sulfur dioxide (SO₂) emissions during fuel combustion.

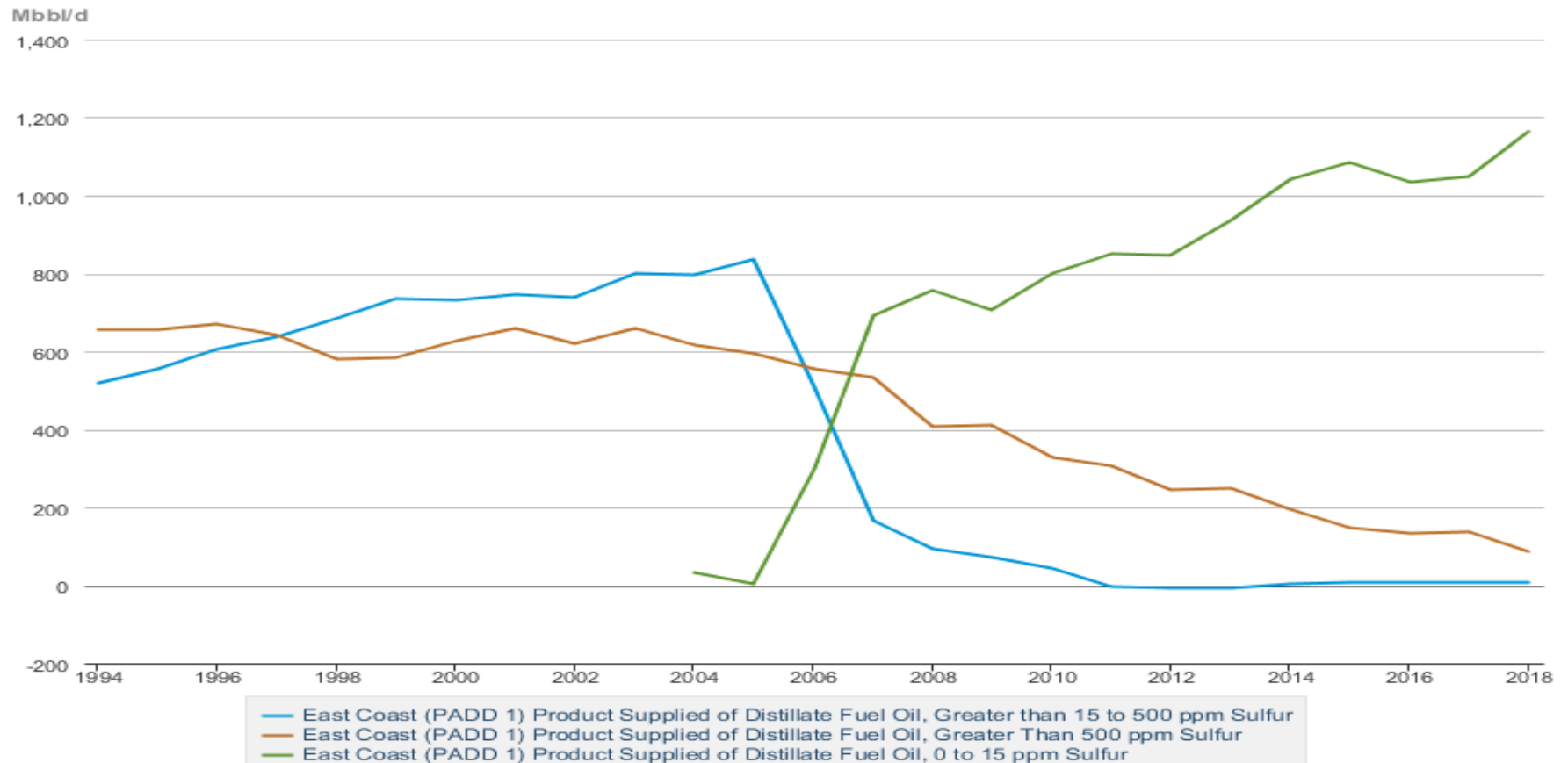
In 2007, the MANE-VU states adopted a formal statement which included an agreement to pursue a regional low-sulfur fuel oil strategy by 2018, as appropriate and necessary.

In 2013, PA amended 25 Pa. Code § 123.22 to reduce the maximum allowable sulfur content limit to 500 ppm for home heating and commercial fuel oils, beginning July 1, 2016.

Distillate Fuel Oil Supply

The supply of distillate fuel oil throughout Pennsylvania and nationwide with a sulfur content of 15 ppm or less is no longer a concern.

Product Supplied



Source: U.S. Energy Information Administration

Basis of Final-form Rulemaking

In 2017, MANE-VU adopted a formal statement which noted that to meet reasonable progress goals, each state that has not fully adopted the 15 ppm limit for No. 2 and lighter fuel oil should pursue this standard as expeditiously as possible and before 2028.

To address this, this rulemaking reduces the No. 2 and lighter commercial fuel oil maximum allowable sulfur content limit for combustion units from 500 ppm to 15 ppm.

The maximum sulfur content level of 15 ppm is consistent with the level that is required in highway, nonroad, locomotive and marine transportation diesel fuels.

Comparison with Other States

No federal sulfur standards for combustion units using No. 2 and lighter fuel oil; all MANE-VU states, except PA, have committed to a maximum allowable sulfur content limit of 15 ppm.

In July 2014, Philadelphia Air Management Services adopted the maximum allowable 15 ppm sulfur content limit.

By lowering the maximum allowable sulfur content limit of No. 2 and lighter fuel oil, there would be statewide and regional consistency.

Applicability

The final-form rulemaking will be applicable to anyone who offers for sale, delivers for use, exchanges in trade or permits the use of No. 2 and lighter commercial fuel oil in this Commonwealth, including:

- Owners and operators of refineries;
- Terminals and retail outlets that produce, convey, store or sell;
- Distributors, carriers, boiler owners; and
- Ultimate consumers.

DEP estimates that up to 812 entities and 892,800 households could be affected by the final-form rulemaking.

Economic Impact

Little to no economic impact on businesses involved in production of No. 2 and lighter commercial fuel oil.

- Refineries already produce or have the ability to achieve a maximum sulfur content of 15 ppm.
- Consolidated storage and transportation of 15 ppm fuel will save money.

Although compliant No. 2 and lighter commercial fuel oil may cost a few cents per gallon more, savings on fuel purchase costs, as well as maintenance and cleaning costs, would help to defray that impact.

Most costs and cost savings have likely already been realized as the majority of No. 2 and lighter commercial fuel oil produced and distributed in Pennsylvania has a maximum sulfur content of 15 ppm or less.

Compliance Impact

No new reporting, recordkeeping, or other administrative costs required for compliance with the proposed rulemaking.

Owners and operators of refineries and retail outlets of commercial fuel oil could still manufacture and sell No. 2 fuel oil with a sulfur content above 15 ppm, if the ultimate consumer is located outside of this Commonwealth and the MANE-VU region and in a state that does not have a maximum allowable sulfur content limit of 15 ppm (i.e. Ohio, West Virginia, Virginia).

Environmental Impact

Additional SO₂ emission reductions are reasonably necessary to meet reasonable further progress at Class I areas under Section 169 of the CAA and will lead to a reduction in fine particulate matter (PM_{2.5}) and ozone.

The complete low sulfur fuel oil strategy estimated SO₂ emissions reductions in PA are expected to be 25,000 tpy.

- The prior rulemaking stopped at 500 ppm for No. 2 and lighter commercial fuel oil. PA reductions to that point were estimated to be at least 21,000 tpy of SO₂ emissions.
- An additional 4,000 tpy of SO₂ emissions is expected to be realized in PA by further reducing the sulfur content limit to 15 ppm.

Public Participation Process

The proposed rulemaking was published in the *Pennsylvania Bulletin* on July 6, 2019 (49 Pa.B. 3482).

The 66-day public comment period ended on September 9, 2019.

Public hearings were held on August 6, 7, and 8, 2019, in Pittsburgh, Norristown, and Harrisburg, respectively.

- Five individuals presented testimony at the public hearings.

Public Comments

Comments were provided by 23 commenters:

- 22 supported the proposed rulemaking; 1 opposed.
 - Comments were submitted by distributors, marketers, trade groups, a pipeline company, Pennsylvania Senator Scott Hutchinson, and the State of New Jersey.

The Independent Regulatory Review Commission (IRRC), also provided comments incorporating the commenters' concerns.

Supporters cited cost savings for consumers and distributors, regional consistency and emission reductions.

Main concern related to small transmix refinery.

Request for biodiesel/biofuel requirement.

Fixed compliance date versus 60 days after promulgation.

Changes to the Rulemaking

The following changes were made in response to the comments received:

- The compliance date was revised to be September 1, 2020, instead of 60 days after the effective date, to provide the industry with a specific fixed date that does not fall within the winter heating season.
- The sell-through provision end date was revised to be August 31, 2020, instead of 59 days after the effective date.

Advisory Committee Review

Advisory committees, the Citizens Advisory Council (CAC) Policy and Regulatory Oversight (PRO) Committee and the CAC unanimously concurred on these dates with the Department's recommendation to present this final-form rulemaking to the EQB for consideration:

- October 17, 2019 - Air Quality Technical Advisory Committee
- October 23, 2019 - Small Business Compliance Advisory Committee
- October 28, 2019 – CAC PRO Committee
- November 19, 2019 – CAC

Recommendation

DEP recommends EQB adoption of this final-form rulemaking.

DEP will submit this final-form rulemaking to the EPA for approval as a revision to the State Implementation Plan (SIP) upon publication as a final-form rulemaking in the *Pennsylvania Bulletin*.



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Air Quality

Krishnan Ramamurthy, Deputy Secretary
Waste, Air, Radiation and Remediation
kramamurth@pa.gov

Bryan T. Oshinski, Air Quality Program Specialist,
Bureau of Air Quality
boshinski@pa.gov

Jesse C. Walker, Assistant Counsel
Bureau of Regulatory Counsel
jeswalker@pa.gov