

**DRAFT PROPOSED RULEMAKING**

**Annex A**

**TITLE 25. ENVIRONMENTAL PROTECTION**

**PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**SUBPART C. PROTECTION OF NATURAL RESOURCES**

**ARTICLE III. AIR RESOURCES**

**CHAPTER 121. GENERAL PROVISIONS**

§ 121.1. Definitions.

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

\* \* \* \* \*

ASTM—**ASTM International, 100 Barr Harbor Drive, P. O. Box C700, West Conshohocken, PA 19428-2959 USA, or on the World Wide Web at [www.astm.org](http://www.astm.org).**

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Commercial fuel oil—**[Commercial fuel oil and mixtures] A fuel oil specifically produced, manufactured for sale and intended for use in fuel oil-burning equipment. A mixture of commercial fuel [oils] oil with [other fuels] noncommercial fuel where greater than 50% of the heat content is derived from the commercial fuel oil portion is considered a commercial fuel oil.**

\* \* \* \* \*

Carrier—A distributor who does not take title to or otherwise have ownership of the **commercial fuel oil or** gasoline, and does not alter either the quality or quantity of the **commercial fuel oil or** gasoline.

\* \* \* \* \*

Distributor—

**(i)** A person who transports, stores or causes the transportation or storage of **commercial fuel oil or** gasoline at any point between a refinery, **[an oxygenate] a** blending facility or terminal and a retail outlet **[or] ,** wholesale purchaser-consumer’s facility **or ultimate consumer.**

**(ii)** The term includes a refinery, **[an oxygenate] a** blending facility or a terminal.

\* \* \* \* \*

*Retail outlet*—An establishment at which **commercial fuel oil or** gasoline is sold or offered for sale to the ultimate consumer for use in **combustion equipment or** motor vehicles, **respectively**.

\* \* \* \* \*

*Terminal*—

**(i)** A facility which is capable of receiving **commercial fuel oil or** gasoline in bulk, that is, by pipeline, barge, ship or other transport, and at which **commercial fuel oil or** gasoline is sold or transferred into trucks for transportation to retail outlets **[or]** , wholesale purchaser-consumer's facilities **or ultimate consumers**.

**(ii)** The term includes bulk gasoline terminals and bulk gasoline plants. **[The]**

**(iii)** **For purposes of Chapter 126, Subchapter A (relating to oxygenate content), the** terminal does not have to be physically located in the control area.

\* \* \* \* \*

*Transferee*—

**(i)** A person who is the recipient of a sale or transfer.

**(ii) The term includes the following:**

**(A) Terminal.**

**(B) Carrier.**

**(C) Distributor.**

**(D) Retail outlet.**

**(E) Ultimate consumer.**

\* \* \* \* \*

*Transferor*—

**(i)** A person who initiates a sale or transfer.

**(ii) The term includes the following:**

**(A) Refiner.**

**(B) Terminal.**

**(C) Carrier.**

**(D) Distributor.**

**(E) Retail outlet.**

\* \* \* \* \*

**Ultimate consumer—With respect to a commercial fuel oil transfer or purchase, the last person, facility or entity who in good faith receives the fuel oil for the purpose of using it in a combustion process, or for purposes other than resale.**

**CHAPTER 123. STANDARDS FOR CONTAMINANTS**

**SULFUR COMPOUND EMISSIONS**

**§ 123.22. Combustion units.**

(a) *Nonair basin areas.* Combustion units in nonair basin areas shall conform with the following:

(1) *General provision.* [No] A person may **not** permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from a combustion unit in excess of the rate of 4 pounds per million Btu of heat input over **[any] a** 1-hour period, except as provided **[for]** in paragraph (4).

(2) *Commercial fuel oil.* [No] A person may **not** offer for sale, deliver for use, exchange in trade or permit the use of commercial fuel oil in nonair basin areas **[which] on or after the effective dates listed in this paragraph, if the commercial fuel oil** contains sulfur in excess of the applicable percentage by weight **or limit** set forth in the following table:

| [Grades Commercial Fuel Oil                                       | % Sulfur |
|---|----------|
| No. 2 and Lighter (viscosity less than or equal to 5.820cSt)      | 0.5      |
| No. 4, No. 5, No. 6, and heavier (viscosity greater than 5.82cSt) | 2.8]     |

| <u>Effective Date</u>  | <u>May 1, 2011</u> | <u>July 1, 2012</u> |
|--|--------------------|---------------------|
| <u>Fuel oil</u>  |                    |                     |
| <u>No. 2 and lighter (viscosity less than or equal to 5.820cSt)</u>    | <u>15 ppm</u>      | <u>15 ppm</u>       |
| <u>No. 4 oil (viscosity greater than 5.82cSt)</u>                      |                    | <u>0.25% sulfur</u> |
| <u>No. 5, No. 6 &amp; heavier oil (viscosity greater than 5.82cSt)</u> |                    | <u>0.5% sulfur</u>  |

(3) *Equivalency provision.* Paragraph (2) **[may] does** not apply to those persons **who use equipment or processes,** or **to** installations where equipment or processes are used, to reduce the **sulfur** emissions from the burning of **[fuels] a fuel** with a higher sulfur content than that specified in paragraph (2). The emissions may not exceed those which would result from the use of the fuels specified in paragraph (2).

\* \* \* \* \*

(b) *Erie; Harrisburg; York; Lancaster; and Scranton, Wilkes-Barre air basins.* Combustion units in these subject air basins shall conform with the following:

(1) *General provision.* **[No] A** person may **not** permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from a combustion unit in excess of the rate of 4 pounds per million Btu of heat input over a 1-hour period, except as provided **[for]** in paragraph (4).

(2) *Commercial fuel oil.* **[No] A** person may **not** offer for sale, deliver for use, exchange in trade or permit the use of commercial fuel oil in the subject air basins **[which contain] on or after the effective dates listed in this paragraph, if the commercial fuel oil contains** sulfur in excess of the applicable percentage by weight **or limit** set forth in the following table:

| [Grades<br>Commercial<br>Fuel Oil                                 | Effective<br>August 1, 1979<br>% Sulfur |
|---|---|
| No. 2 and Lighter (viscosity less than or equal to 5.820cSt)      | 0.3                                     |
| No. 4, No. 5, No. 6, and heavier (viscosity greater than 5.82cSt) | 2.8]                                    |

| <u>Effective Date</u>   | <u>May 1, 2011</u>   | <u>July 1, 2012</u>        |
|---|----------------------|----------------------------|
| <b><u>Fuel oil</u></b>  |                      |                            |
| <b><u>No. 2 and lighter (viscosity less than or equal to 5.820cSt)</u></b>    | <b><u>15 ppm</u></b> | <b><u>15 ppm</u></b>       |
| <b><u>No. 4 oil (viscosity greater than 5.82cSt)</u></b>                      |                      | <b><u>0.25% sulfur</u></b> |
| <b><u>No. 5, No. 6 &amp; heavier oil (viscosity greater than 5.82cSt)</u></b> |                      | <b><u>0.5% sulfur</u></b>  |

(3) *Equivalency provision.* Paragraph (2) does not apply to those persons **who use equipment or processes,** or **to** installations where equipment or processes are used, to reduce the **sulfur** emissions from the burning of **[fuels] a fuel** with a higher sulfur content than that specified in

paragraph (2). The emissions may not exceed those which would result from the use of the fuels specified in paragraph (2).

\* \* \* \* \*

(c) *Allentown, Bethlehem, Easton, Reading, Upper Beaver Valley and Johnstown air basins.* Combustion units in these subject air basins shall conform with the following:

(1) *General provision.* [No] A person may **not** permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from [any] a combustion unit [, **at any time,**] in excess of the rate of 3 pounds per million Btu of heat input over [any] a 1-hour period, except as provided [for] in paragraph (4).

(2) *Commercial fuel oil.* [No] A person may [, **at any time,**] **not** offer for sale, deliver for use, exchange in trade or permit the use of commercial fuel oil in the subject air basins on or after the effective dates listed in this paragraph [**which, if the fuel oil** contains sulfur in excess of the applicable percentage by weight **or limit** set forth in the following table:

| [Grades<br>Commercial<br>Fuel Oil                                | Effective<br>August 1, 1979<br>% Sulfur |
|--|---|
| No. 2 and Lighter (viscosity less than or equal to 5.82cSt)      | 0.3                                     |
| No. 4, No. 5, No. 6 and heavier (viscosity greater than 5.82cSt) | 2.0]                                    |

| <u>Effective Date</u>   | <u>May 1, 2011</u>   | <u>July 1, 2012</u>        |
|---|----------------------|----------------------------|
| <b><u>Fuel oil</u></b>  |                      |                            |
| <b><u>No. 2 and lighter (viscosity less than or equal to 5.820cSt)</u></b>    | <b><u>15 ppm</u></b> | <b><u>15 ppm</u></b>       |
| <b><u>No. 4 oil (viscosity greater than 5.82cSt)</u></b>                      |                      | <b><u>0.25% sulfur</u></b> |
| <b><u>No. 5, No. 6 &amp; heavier oil (viscosity greater than 5.82cSt)</u></b> |                      | <b><u>0.5% sulfur</u></b>  |

(3) *Equivalency provision.* Paragraph (2) does not apply to those persons **who use equipment or processes,** or **to** installations where equipment or processes are used, to reduce the **sulfur** emissions from the burning of [fuels] **a fuel** with a higher sulfur content than that specified in paragraph (2); **however, the, The** emissions may not exceed those which would result from the use of the fuels specified in paragraph (2).

\* \* \* \* \*

(d) *Allegheny County, Lower Beaver Valley, and Monongahela Valley air basins.* **[No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from any combustion unit in excess of any of] Combustion units in these subject air basins shall conform with** the following:

**(1) General provision. A person may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from a combustion unit in excess of one or more of the following:**

**(i)** The rate of one pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.

**[(2)] (ii)** The rate determined by the following formula:  $A = 1.7E^{-0.14}$ , where: A = Allowable emissions in pounds per million Btu of heat input, and E = Heat input to the combustion unit in millions of Btus per hours when E is equal to or greater than 50 but less than 2,000.

**[(3)] (iii)** The rate of 0.6 pounds per million Btu of heat input when the heat input to the combustion unit in millions of Btus per hour is equal to or greater than 2,000.

**(2) Commercial fuel oil. A person may not offer for sale, deliver for use, exchange in trade or permit the use of commercial fuel oil in the subject air basins on or after the effective dates listed in this paragraph, if the commercial fuel oil contains sulfur in excess of the applicable percentage by weight or limit set forth in the following table:**

| <u>Effective Date</u>  | <u>May 1, 2011</u> | <u>July 1, 2012</u> |
|--|--------------------|---------------------|
| <u>Fuel oil</u>  |                    |                     |
| <u>No. 2 and lighter (viscosity less than or equal to 5.820cSt)</u>    | <u>15 ppm</u>      | <u>15 ppm</u>       |
| <u>No. 4 oil (viscosity greater than 5.82cSt)</u>                      |                    | <u>0.25% sulfur</u> |
| <u>No. 5, No. 6 &amp; heavier oil (viscosity greater than 5.82cSt)</u> |                    | <u>0.5% sulfur</u>  |

**(3) Equivalency provision. Paragraph (2) does not apply to those persons who use equipment or processes, or to installations where equipment or processes are used, to reduce the sulfur emissions from the burning of a fuel with a higher sulfur content than that specified in paragraph (2). The emissions may not exceed those which would result from the use of the fuels specified in paragraph (2).**

(e) *Southeast Pennsylvania air basin.* Combustion units in the Southeast Pennsylvania air basin shall conform with the following:

(1) *General provision.* [No] A person may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as [SO2] SO<sub>2</sub>, from [any] a combustion unit except as provided [for] in paragraph (3) or (5), in excess of the applicable rate in pounds per million Btu of heat input specified in the following table:

| <i>Rated Capacity<br/>of Units in<br/>10<sup>6</sup> Btus<br/>per hour</i> | <i>Inner<br/>Zone</i> | <i>Outer<br/>Zone</i> |
|--|-----------------------|-----------------------|
| less than 250  | 1.0                   | 1.2                   |
| greater than or equal to 250   | 0.6                   | 1.2                   |

(2) *Commercial fuel oil.* [No] A person may [, at any time,] not offer for sale, deliver [or] for use, exchange in trade or permit the use of commercial fuel oil [for use] in a combustion [units] unit in the Southeast Pennsylvania air basin [which] on or after the effective dates listed in this paragraph, if the commercial fuel oil contains sulfur in excess of the applicable [percentages] percentage by weight or limit set forth in the following table:

| <b>[Grades of<br/>Commercial<br/>Fuel Oil</b>                           | <b>Inner<br/>Zone</b> | <b>Outer<br/>Zone</b> |
|---|-----------------------|-----------------------|
| <b>No. 2 and lighter (viscosity less than or equal to 5.82cSt)</b>      | <b>0.2%</b>           | <b>0.3%</b>           |
| <b>No. 4, No. 5, No. 6 and Heavier (viscosity greater than 5.82cSt)</b> | <b>0.5%</b>           | <b>1.0%</b>           |

| <b><u>Effective Date</u></b>  | <b><u>May 1, 2011</u></b> | <b><u>July 1, 2012</u></b> |
|---|---------------------------|----------------------------|
| <b><u>Fuel oil</u></b>  |                           |                            |
| <b><u>No. 2 and lighter (viscosity less than or equal to 5.820cSt)</u></b>    | <b><u>15 ppm</u></b>      | <b><u>15 ppm</u></b>       |
| <b><u>No. 4 oil (viscosity greater than 5.82cSt)</u></b>                      |                           | <b><u>0.25% sulfur</u></b> |
| <b><u>No. 5, No. 6 &amp; heavier oil (viscosity greater than 5.82cSt)</u></b> |                           | <b><u>0.5% sulfur</u></b>  |

(3) *Noncommercial fuels.* [No] A person may **not** permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from **[any] a** combustion unit using noncommercial fuel **[at any time]**, in excess of the rate of 0.6 pounds per million Btu of heat input in the inner zone or 1.2 pounds per million Btu of heat input in the outer zone.

(4) *Equivalency provision.* Paragraph (2) does **not** apply to those persons **who use equipment or processes, or to** installations where equipment or processes are used, to reduce the **sulfur** emissions from the burning of **[fuels] a fuel** with a higher sulfur content than that specified in paragraph (2); **however, the**. **The** emissions may not exceed those which would result from the use of the fuels specified in paragraph (2).

\* \* \* \* \*

**(f) Sampling and testing.**

**(1) For the purpose of determining compliance with the requirements of this section, the sulfur content of commercial fuel oil shall be determined by one of the following:**

**(i) In accordance with the sample collection, test methods and procedures specified under § 139.16 (relating to sulfur in fuel oil).**

**(ii) Other methods developed or approved by the Administrator of the EPA.**

**(2) A refiner owner or operator who produces commercial fuel oil intended for use or used in this Commonwealth on or after the applicable effective dates in paragraphs (a)(2), (b)(2), (c)(2), (d)(2) and (e)(2), is required to sample, test and calculate the sulfur content of each batch of the commercial fuel oil as specified under paragraph (1).**

**(3) A terminal owner or operator shall develop and implement written procedures, including procedures for commercial fuel oil sampling and testing as specified under paragraph (1). These procedures shall be made available to the Department upon request.**

**(g) Recordkeeping and reporting.**

**(1) Beginning with the refiner owner or operator who sells or transfers commercial fuel oil in this Commonwealth and ending with the ultimate consumer, on or after the applicable effective dates specified in paragraphs (a)(2), (b)(2), (c)(2), (d)(2) and (e)(2), each time the physical custody of, or title to, a shipment of commercial fuel oil changes hands, the transferor shall provide to the transferee an electronic or paper record described in this paragraph. This record shall legibly and conspicuously contain the following information:**

**(i) The date of the sale or transfer.**

**(ii) The name and address of the transferor.**

**(iii) The name and address of the transferee.**



(iv) The volume of commercial fuel oil being sold or transferred.

(v) The sulfur content of the commercial fuel oil by weight percent on a per-gallon basis determined using the sampling and testing methods specified under subsection (f).

(vi) The location of the commercial fuel oil at the time of transfer.

(2) The refiner owner or operator shall do both of the following:

(i) Maintain in electronic or paper format, the records developed under paragraph (f)(2) to determine the sulfur content of each batch of the commercial fuel oil.

(ii) Provide electronic or written copies of the records developed under paragraph (f)(2) of the sulfur content of each batch of the commercial fuel oil to the Department upon request.

(3) The terminal owner or operator shall do both of the following:

(i) Maintain in electronic or paper format, the records developed under paragraph (f)(3) to determine the sulfur content of the commercial fuel oil.

(ii) Provide electronic or written copies of the records of the sulfur content of the commercial fuel oil to the Department upon request.

(4) A person subject to the recordkeeping requirements under this section shall do both of the following:

(i) Maintain the applicable record or records required under paragraphs (1)-(3) in electronic or paper format for 2 years.

(ii) Provide an electronic or written copy of the applicable record to the Department upon request.

(5) The ultimate consumer shall maintain in electronic or paper format the record containing the information listed under paragraph (1), except in either of the following situations:

(i) The transfer or use of the commercial fuel oil occurs at a private residence.

(ii) The ultimate consumer is an owner of an apartment or condominium building housing private residents and the transfer or use of the commercial fuel oil occurs for use at the building.

## CHAPTER 139. SAMPLING AND TESTING

### GENERAL

#### § 139.4. References.

The references referred to in this chapter are as follows:

\* \* \* \* \*

(10) [*Standard Method of Sampling Petroleum and Petroleum Products*, American Society for Testing Materials, D 270-80, 1916 Race Street, Philadelphia, Pennsylvania 19103] ASTM D 4057, Practice for Manual Sampling of Petroleum and Petroleum Products, including updates and revisions.

(11) [*Standard Method of Test for Kinematic Viscosity of Transparent and Opaque Liquids (and the calculation of Dynamic Viscosity)*, American Society for Testing Materials, D 445-79, 1916 Race Street, Philadelphia, Pennsylvania 19103] ASTM D 445, Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity), including updates and revisions.

(12) [*Standard Method of Test for Sulfur in Petroleum Products (Lamp Method)*, American Society for Testing Materials, D 1266-80, 1916 Race Street, Philadelphia, Pennsylvania 19103] ASTM D 1266, Test Methods for Sulfur in Petroleum Products: Lamp Method, including updates and revisions.

(13) [*Standard Method of Test for Sulfur in Petroleum Products by the Bomb Method*, American Society for Testing Materials, D 129-78, 1916 Race Street, Philadelphia, Pennsylvania 19103] ASTM D 129, Test Methods for Sulfur in Petroleum Products: General Bomb Method, including updates and revisions.

(14) [*Standard Method of Test for Sulfur in Petroleum Products (High Temperature Method)*, American Society for Testing Materials, D 1552-79, 1916 Race Street, Philadelphia, Pennsylvania 19103] ASTM D 1552, Test Methods for Sulfur in Petroleum Products: High-Temperature Method, including updates and revisions.

(15) [*Standard Method of Test for Sulfur in Petroleum Products (X-Ray Spectrographic Method)*, American Society for Testing Materials, D 2622-77, 1916 Race Street, Philadelphia, Pennsylvania 19103] ASTM D 2622, Test Methods for Sulfur in Petroleum Products by X-Ray Spectrometry, including updates and revisions.

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**(20) ASTM D 4294, Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry, including updates and revisions.**

**(21) ASTM D 4177, Practice for Automatic Sampling of Petroleum and Petroleum Products, including updates and revisions.**

## CHAPTER 139. SAMPLING AND TESTING

### STATIONARY SOURCES

#### § 139.16. Sulfur in fuel oil.

The following are applicable to tests for the analysis of commercial fuel oil:

(1) The fuel oil sample for chemical analysis shall be collected in a manner that provides a representative sample. Upon the request of a Department official, the person responsible for the operation of the source shall collect the sample employing the procedures and equipment specified in § 139.4(10) **or (21)** (relating to references).

(2) Test methods and procedures for the determination of viscosity shall be that specified in § 139.4(11). The viscosity shall be determined at 100°F.

(3) Tests methods and procedures for the determination of sulfur shall be those specified in § 139.4(12)—(15) **and (20)**.

(4) Results shall be reported in accordance with the units specified in § 123.22 (relating to combustion units).