### FINAL-FORM RULEMAKING

### Annex A

# TITLE 25. ENVIRONMENTAL PROTECTION PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION Subpart C. PROTECTION OF NATURAL RESOURCES ARTICLE III. AIR RESOURCES

# CHAPTER 123. STANDARDS FOR CONTAMINANTS SULFUR COMPOUND EMISSIONS

#### § 123.22. Combustion units.

- (a) *Nonair basin areas*. Combustion units in nonair basin areas must 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 the rate of 4 pounds per million Btu of heat input over a 1-hour period, except as provided in paragraph (4).
  - (2) Commercial fuel oil.
- (i) Except as specified in subparagraphs (ii) and (iii), 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 if the commercial fuel oil contains sulfur in excess of the applicable maximum allowable sulfur content set forth in the following **[tables]** table:

[Grades Commercial Fuel Oil	Maximum Allowable % Sulfur by
	Weight through June 30, 2016
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

Maximum Allowable Sulfur Content Beginning July 1, 2016, Expressed as Parts per Million (ppm) by Weight or Percentage by Weight

## Grades Commercial Fuel Oil (Consistent with ASTM D396)

No. 2 and lighter oil	500 ppm	(0.05%)
No. 4 oil	2,500 ppm	(0.25%)
No. 5, No. 6 and heavier oil	5,000 ppm	(0.5%)

#### Maximum Allowable Sulfur Content

<b>Grades Commercial</b>	<u>Throu</u>	<u>ıgh</u>	<u>Begi</u>	<u>nning</u>
Fuel Oil (Consistent	(Editor's note:	The blank	(Editor's not	e: The blank
with ASTM D396)	refers to the d	ate 59 days	refers to the	date 60 days
	after the effec	tive date of	after the eff	ective date of
	adoption of th	<del>is proposed</del>	adoption of	this proposed
	<u>rulemakir</u>	<del>ig when</del>	<u>rulemak</u>	<del>ing when</del>
	published as a	<del>- final-form</del>	<del>published as</del>	<del>s a final-form</del>
	rul	<del>emaking.)</del>	<u>r</u>	<del>ulemaking.)</del>
	AUGUST	31, 2020	SEPTEME	BER 1, 2020
No. 2 and lighter oil	<u>500 ppm</u>	(0.05%)	<u>15 ppm</u>	(0.0015%)
No. 4 oil	<b>2,500 ppm</b>	(0.25%)	<u>2,500 ppm</u>	(0.25%)
No. 5, No. 6 and	<u>5,000 ppm</u>	<u>(0.5%)</u>	<u>5,000 ppm</u>	<u>(0.5%)</u>
<u>heavier oil</u>				

- (ii) Commercial fuel oil that was stored in this Commonwealth by the ultimate consumer prior to [July 1, 2016]
- (Editor's note: The blank refers to the date 60 days after the effective date of adoption of this proposed rulemaking when published as a final form rulemaking.)

  SEPTEMBER 1, 2020, which met the applicable maximum allowable sulfur content for commercial fuel oil through [June 30, 2016] (Editor's note: The blank refers to the date 59 days after the effective date of adoption of this proposed rulemaking when published as a final form rulemaking.) AUGUST 31, 2020, in subparagraph (i) at the time it was stored, may be used by the ultimate consumer in this Commonwealth on and after [July 1, 2016] (Editor's note: The blank refers to the date 60 days after the effective date of adoption of this proposed rulemaking when published as a final form rulemaking.) SEPTEMBER 1, 2020.
- (iii) [Beginning July 1, 2016, the] <u>The</u> Department may temporarily suspend or increase the applicable maximum allowable sulfur content for a commercial fuel oil set forth in subparagraph (i) if the following occur:
- (A) The Department receives a written request at the address specified in subsection (h) for a suspension or increase on the basis that compliant commercial fuel oil is not reasonably available in a nonair basin area. The request must include the following:
  - (I) The nonair basin county or counties for which the suspension or increase is requested.
  - (II) The reason compliant commercial fuel oil is not reasonably available.

- (III) The duration of time for which the suspension or increase is requested and the justification for the requested duration.
- (B) The Department determines that an insufficient quantity of compliant commercial fuel oil is reasonably available in the nonair basin area and that the circumstances leading to the insufficiency are due to events that could not have been reasonably foreseen or prevented and are not due to lack of prudent planning on the part of the transferor of the commercial fuel oil into or within the specified nonair basin area.
- (C) The Department approves the request, in writing, prior to the transferor distributing the noncompliant commercial fuel oil into or within the specified nonair basin area.
- (iv) The Department will limit a suspension or increase in the applicable maximum allowable sulfur content granted under subparagraph (iii) to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available, but in no case longer than 60 days from the date the Department grants the suspension or increase.

- (b) *Erie; Harrisburg; York; Lancaster; and Scranton, Wilkes-Barre air basins*. Combustion units in these subject air basins must 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 the rate of 4 pounds per million Btu of heat input over a 1-hour period, except as provided in paragraph (4).
  - (2) Commercial fuel oil.
- (i) Except as specified in subparagraphs (ii) and (iii), 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 if the commercial fuel oil contains sulfur in excess of the applicable maximum allowable sulfur content set forth in the following **[tables]** table:

	Maximum Allowable % Sulfur by
	Weight through June 30,
[Grades Commercial Fuel Oil	2016
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

Maximum Allowable Sulfur Content Beginning July 1, 2016, Expressed as Parts per Million (ppm) by Weight or Percentage by Weight

### Grades Commercial Fuel Oil (Consistent with ASTM D396)

No. 2 and lighter oil	500 ppm	(0.05%)
No. 4 oil	2,500 ppm	(0.25%)
No. 5, No. 6 and heavier oil	5,000 ppm	(0.5%)]

#### Maximum Allowable Sulfur Content

	<b>Through</b>	<u>h</u>	<u>Beginni</u>	ing
	(Editor's note: ]	<del>The blank</del>	(Editor's note:	The blank
	refers to the dat	<del>e 59 days</del>	refers to the da	<del>te 60 days</del>
	after the effective	<del>ve date of</del>	after the effect	<del>ive date of</del>
	adoption of this	<del>proposed</del>	adoption of this	<del>s proposed</del>
	<u>rulemaking</u>	<del>when</del>	<u>rulemaking</u>	<del>y when</del>
<b>Grades Commercial</b>	published as a fi	<del>inal form</del>	published as a	<del>final form</del>
Fuel Oil (Consistent	<u>rule</u>	<del>making.)</del>	<del></del>	<del>naking.)</del>
with ASTM D396)	<b>AUGUST 31</b>	, 2020	SEPTEMBEI	R 1, 2020
No. 2 and lighter oil	<u>500 ppm</u>	<u>(0.05%)</u>	<u>15 ppm</u>	(0.0015%)
<u>No. 4 oil</u>	<u>2,500 ppm</u>	<u>(0.25%)</u>	<u>2,500 ppm</u>	<u>(0.25%)</u>
No. 5, No. 6 and	<u>5,000 ppm</u>	(0.5%)	<u>5,000 ppm</u>	(0.5%)
heavier oil				

- (iii) [Beginning July 1, 2016, the] <u>The</u> Department may temporarily suspend or increase the applicable maximum allowable sulfur content for a commercial fuel oil set forth in subparagraph (i) if the following occur:
- (A) The Department receives a written request at the address specified in subsection (h) for a suspension or increase on the basis that compliant commercial fuel oil is not reasonably available in a subject air basin. The request must include the following:

- (I) The subject air basin for which the suspension or increase is requested.
- (II) The reason compliant commercial fuel oil is not reasonably available.
- (III) The duration of time for which the suspension or increase is requested and the justification for the requested duration.
- (B) The Department determines that an insufficient quantity of compliant commercial fuel oil is reasonably available in the air basin and that the circumstances leading to the insufficiency are due to events that could not have been reasonably foreseen or prevented and are not due to lack of prudent planning on the part of the transferor of the commercial fuel oil into or within the air basin.
- (C) The Department approves the request, in writing, prior to the transferor distributing the noncompliant commercial fuel oil into or within the air basin.
- (iv) The Department will limit a suspension or increase in the applicable maximum allowable sulfur content granted under subparagraph (iii) to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available, but in no case longer than 60 days from the date the Department grants the suspension or increase.

- (c) Allentown, Bethlehem, Easton; Reading; Upper Beaver Valley; and Johnstown air basins. Combustion units in these subject air basins must 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 the rate of 3 pounds per million Btu of heat input over a 1-hour period, except as provided in paragraph (4).
  - (2) Commercial fuel oil.
- (i) Except as specified in subparagraphs (ii) and (iii), 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 if the commercial fuel oil contains sulfur in excess of the applicable maximum allowable sulfur content set forth in the following **[tables]** table:

	Maximum Allowable % Sulfur by
	Weight through June 30,
[Grades Commercial Fuel Oil	2016
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)	2.0

#### Maximum Allowable Sulfur Content Beginning July 1, 2016, Expressed as Parts per Million (ppm) by Weight or Percentage by Weight

### Grades Commercial Fuel Oil (Consistent with ASTM D396)

No. 2 and lighter oil	500 ppm	(0.05%)
No. 4 oil	2,500 ppm	(0.25%)
No. 5, No. 6 and heavier oil	5,000 ppm	(0.5%)

#### Maximum Allowable Sulfur Content

	<u>T</u>	<u> Through</u>	<u>B</u>	eginning
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	<u>refers to 1</u>	the date 59 days	<u>refers to</u>	the date 60 days
	after the	<u>effective date of</u>	<u>after the</u>	effective date of
	<u>adoption</u>	of this proposed	<u>adoption</u>	of this proposed
<b>Grades Commercial</b>	<u>rulem</u>	<del>aking when</del>	<u>rulen</u>	<del>naking when</del>
<u>Fuel Oil</u>	<del>published</del>	<del>l as a final-form</del>	<del>publishe</del>	<del>d as a final-form</del>
(Consistent with		<del>rulemaking.)</del>		<del>rulemaking.)</del>
<u> ASTM D396)</u>	AUGU	JST 31, 2020	SEPTE	MBER 1, 2020
No. 2 and lighter oil	<u>500 ppm</u>	(0.05%)	<u>15 ppm</u>	(0.0015%)
No. 4 oil	<b>2,500 ppm</b>	(0.25%)	<b>2,500 ppm</b>	(0.25%)
No. 5, No. 6 and heavier oil	<u>5,000 ppm</u>	(0.5%)	<u>5,000 ppm</u>	<u>(0.5%)</u>

- (iii) [Beginning July 1, 2016, the] <u>The</u> Department may temporarily suspend or increase the applicable maximum allowable sulfur content for a commercial fuel oil set forth in subparagraph (i) if the following occur:

- (A) The Department receives a written request at the address specified in subsection (h) for a suspension or increase on the basis that compliant commercial fuel oil is not reasonably available in a subject air basin. The request must include the following:
  - (I) The subject air basin for which the suspension or increase is requested.
  - (II) The reason compliant commercial fuel oil is not reasonably available.
- (III) The duration of time for which the suspension or increase is requested and the justification for the requested duration.
- (B) The Department determines that an insufficient quantity of compliant commercial fuel oil is reasonably available in the air basin and that the circumstances leading to the insufficiency are due to events that could not have been reasonably foreseen or prevented and are not due to lack of prudent planning on the part of the transferor of the commercial fuel oil into or within the air basin.
- (C) The Department approves the request, in writing, prior to the transferor distributing the noncompliant commercial fuel oil into or within the air basin.
- (iv) The Department will limit a suspension or increase in the applicable maximum allowable sulfur content granted under subparagraph (iii) to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available, but in no case longer than 60 days from the date the Department grants the suspension or increase.

- (d) Allegheny County; Lower Beaver Valley; and Monongahela Valley air basins. Combustion units in these subject air basins must 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 1 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.
- (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.
- (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.

(i) Except as specified in subparagraphs (ii) and (iii), 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 July 1, 2016], if the commercial fuel oil contains sulfur in excess of the applicable maximum allowable sulfur content set forth in the following table:

#### [Maximum Allowable Sulfur Content Beginning July 1, 2016, Expressed as Parts per Million (ppm) by Weight or Percentage by Weight

### Grades Commercial Fuel Oil (Consistent with ASTM D396)

No. 2 and lighter oil	500 ppm
	(0.05%)
No. 4 oil	2,500
	ppm (0.25%)
No. 5, No. 6 and heavier oil	5,000 (0.5%)]
	ppm

#### Maximum Allowable Sulfur Content

#### Expressed as Parts per Million (ppm) by Weight or Percentage by Weight

	<u>7</u>	<u> Through</u>	<u>B</u>	<u>Seginning</u>
	(Editor's	note: The blank	(Editor's	note: The blank
	<u>refers to</u>	the date 59 days	<u>refers to</u>	the date 60 days
	after the	effective date of	<u>after the</u>	effective date of
	<u>adoption</u>	of this proposed	<u>adoption</u>	of this proposed
<b>Grades Commercial</b>	<u>rulen</u>	<del>naking when</del>	<del>ruler</del>	<del>naking when</del>
<u>Fuel Oil</u>	<del>publishe</del> c	<del>l as a final-form</del>	<del>publishe</del>	<del>d as a final-form</del>
(Consistent with		<u>rulemaking.)</u>	-	<u>rulemaking.)</u>
<u>ASTM D396)</u>	AUG	UST 31, 2020	SEPTE	MBER 1, 2020
No. 2 and lighter oil	<u>500 ppm</u>	<u>(0.05%)</u>	<u>15 ppm</u>	<u>(0.0015%)</u>
<b>No. 4 oil</b>	<u>2,500 ppm</u>	<u>(0.25%)</u>	<u>2,500 ppm</u>	<u>(0.25%)</u>
No. 5, No. 6 and	<u>5,000 ppm</u>	<u>(0.5%)</u>	<u>5,000 ppm</u>	(0.5%)
heavier oil				

## refers to the date 60 days after the effective date of adoption of this proposed rulemaking when published as a final form rulemaking.) SEPTEMBER 1, 2020.

- (iii) [Beginning July 1, 2016, the] <u>The</u> Department may temporarily suspend or increase the applicable maximum allowable sulfur content for a commercial fuel oil set forth in subparagraph (i) if the following occur:
- (A) The Department receives a written request at the address specified in subsection (h) for a suspension or increase on the basis that compliant commercial fuel oil is not reasonably available in a subject air basin. The request must include the following:
  - (I) The subject air basin for which the suspension or increase is requested.
  - (II) The reason compliant commercial fuel oil is not reasonably available.
- (III) The duration of time for which the suspension or increase is requested and the justification for the requested duration.
- (B) The Department determines that an insufficient quantity of compliant commercial fuel oil is reasonably available in the air basin and that the circumstances leading to the insufficiency are due to events that could not have been reasonably foreseen or prevented and are not due to lack of prudent planning on the part of the transferor of the commercial fuel oil into or within the air basin.
- (C) The Department approves the request, in writing, prior to the transferor distributing the noncompliant commercial fuel oil into or within the air basin.
- (iv) The Department will limit a suspension or increase in the applicable maximum allowable sulfur content granted under subparagraph (iii) to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available, but in no case longer than 60 days from the date the Department grants the suspension or increase.

\* \* \* \* \*

- (e) *Southeast Pennsylvania air basin*. Combustion units in the Southeast Pennsylvania air basin must 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 except as provided in paragraph (3) or (5), in excess of the applicable rate in pounds per million Btu of heat input specified in the following table:

#### Rated Capacity of Units in 10<sup>6</sup> Btus per hour Inner Zone Outer Zone

Less than 250	1.0	1.2
Greater than or equal to 250	0.6	1.2

#### (2) Commercial fuel oil.

(i) Except as specified in subparagraphs (ii) and (iii), a person may not offer for sale, deliver for use, exchange in trade or permit the use of commercial fuel oil in a combustion unit in the Southeast Pennsylvania air basin if the commercial fuel oil contains sulfur in excess of the applicable maximum allowable sulfur content set forth in the following **[tables]** table:

	[Maximum Allowable % Sulfur by Weight through June 30, 2016	
Grades Commercial Fuel Oil	Inner Zone	Outer Zone
No. 2 and Lighter (viscosity less than or equal to 5.820cSt)	0.2	0.3
No. 4, No. 5, No. 6 and heavier (viscosity greater than 5.82cSt)	0.5	1.0

#### Maximum Allowable Sulfur Content Beginning July 1, 2016, Expressed as Parts per Million (ppm) by Weight or Percentage by Weight

### Grades Commercial Fuel Oil (Consistent with ASTM D396)

No. 2 and lighter oil	500 ppm	(0.05%)	
No. 4 oil	2,500 ppm	(0.25%)	
No. 5, No. 6 and heavier oil	5,000 ppm	(0.5%)]	

#### Maximum Allowable Sulfur Content

	<u>Through</u>		<u>Beginning</u>	
	(Editor's note: The blank		(Editor's note: The blank	
	refers to the date 59 days		refers to the date 60 days	
	after the effective date of		after the effective date of	
	adoption of this proposed		adoption of this proposed	
<b>Grades Commercial</b>	rulemaking when		rulemaking when	
<u>Fuel Oil</u>	published as a final form		<del>published as a final-form</del>	
(Consistent with		<del>rulemaking.)</del>		<del>rulemaking.)</del>
<u>ASTM D396)</u>	<b>AUGUST 31, 2020</b>		SEPTEMBER 1, 2020	
No. 2 and lighter oil	<u>500 ppm</u>	(0.05%)	<u>15 ppm</u>	(0.0015%)
No. 4 oil	2,500 ppm	(0.25%)	2,500 ppm	(0.25%)
No. 5, No. 6 and	<u>5,000 ppm</u>	(0.5%)	<u>5,000 ppm</u>	(0.5%)
<u>heavier oil</u>				

- (iii) [Beginning July 1, 2016, the] <u>The</u> Department may temporarily suspend or increase the applicable maximum allowable sulfur content for a commercial fuel oil set forth in subparagraph (i) if the following occur:
- (A) The Department receives a written request at the address specified in subsection (h) for a suspension or increase on the basis that compliant commercial fuel oil is not reasonably available in the subject air basin. The request must include both of the following:
  - (I) The reason compliant commercial fuel oil is not reasonably available.
- (II) The duration of time for which the suspension or increase is requested and the justification for the requested duration.
- (B) The Department determines that an insufficient quantity of compliant commercial fuel oil is reasonably available in the air basin and that the circumstances leading to the insufficiency are due to events that could not have been reasonably foreseen or prevented and are not due to lack of prudent planning on the part of the transferor of the commercial fuel oil into or within the air basin.
- (C) The Department approves the request, in writing, prior to the transferor distributing the noncompliant commercial fuel oil into or within the air basin.
- (iv) The Department will limit a suspension or increase in the applicable maximum allowable sulfur content granted under subparagraph (iii) to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available, but in no case longer than 60 days from the date the Department grants the suspension or increase.

(f) Sampling and testing.

- (1) For the purpose of determining compliance with the requirements of this section, the actual 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 Department or the Administrator of the EPA, or both.
- (2) [Beginning July 1, 2016, a] A refinery owner or operator who produces commercial fuel oil intended for use or used in this Commonwealth is required to sample, test and calculate the actual sulfur content of each batch of the commercial fuel oil as specified in paragraph (1).
- (3) [Beginning July 1, 2016, and prior] Prior to offering for sale, delivering for use, exchanging in trade or permitting the use of commercial fuel oil in this Commonwealth, a person other than the ultimate consumer that accepts a shipment of commercial fuel oil from a refinery or other transferor, shall sample, test and calculate the actual sulfur content of the commercial fuel oil in accordance with paragraph (1) if the shipment lacks the record required under subsection (g)(1) that enables the transferee to determine if the sulfur content of the shipment of commercial fuel oil meets the applicable maximum allowable sulfur content.
  - (g) Recordkeeping and reporting.
- (1) Beginning with the refinery owner or operator who sells or transfers commercial fuel oil into or within this Commonwealth for use in this Commonwealth and ending with the ultimate consumer, each time the physical custody of, or title to, a shipment of commercial fuel oil changes hands [on or after July 1, 2016], the transferor shall provide to the transferee an electronic or paper record described in this paragraph. This record must 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 identification of the sulfur content of the shipment of commercial fuel oil, determined using the sampling and testing methods specified in subsection (f)(1), expressed as one of the following statements:
- (A) For a shipment of No. 2 and lighter commercial fuel oil[, "The sulfur content of this shipment is 500 ppm or below."]:

- (I) Prior to <u>(Editor's note: The blank refers to the date 60 days after the effective date of adoption of this proposed rulemaking when published as a final form rulemaking.)</u> SEPTEMBER 1, 2020—"The sulfur content of this shipment is 500 ppm or below."
- (II) On and after (Editor's note: The blank refers to the date 60 days after the effective date of adoption of this proposed rulemaking when published as a final form rulemaking.) SEPTEMBER 1, 2020—"The sulfur content of this shipment is 15 ppm or below."
- (B) For a shipment of No. 4 commercial fuel oil, "The sulfur content of this shipment is 2,500 ppm or below."
- (C) For a shipment of No. 5, No. 6 and heavier commercial fuel oil, "The sulfur content of this shipment is 5,000 ppm or below."
  - (vi) The location of the commercial fuel oil at the time of transfer.