

NOTE

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(NEW)

Section 22a-174-19b. Fuel Sulfur Content Limitations for Stationary Sources.

(a) Definitions. For the purposes of this section:

(1) “Aviation fuel” means a refined petroleum distillate defined in ASTM D1655, Standard Specification for Aviation Turbine Fuels, or the current active version thereof. “Aviation fuel” includes Jet A and Jet A-1 but does not include Jet B.

(2) “Combustion” means the rapid chemical combination of oxygen with the combustible element of a fuel resulting in the production of heat.

(3) “Fuel” means distillate fuel oil, residual oil, blends of distillate fuel oil and biodiesel fuel, blends of residual oil and biodiesel fuel, aviation fuel or kerosene.

(4) “Kerosene” means a refined petroleum distillate defined in ASTM D3699-08, Standard Specification for Kerosine, or the current active version thereof.

(5) “Sulfur dioxide” or “SO₂” means a gas that at standard conditions has the molecular form SO₂.

(b) Applicability. Except as provided in subsection (c) or (e) of this section, this section applies to any person who, on or after July 1, 2014, sells, supplies, offers for sale, stores, delivers or exchanges in trade in the state of Connecticut any fuel for combustion in a stationary source in the state of Connecticut and to any person who, on or after July 1, 2014, combusts any fuel in a stationary source within the state of Connecticut.

(c) Exemptions. The persons and fuels identified in this subsection are exempt from regulation pursuant to this section.

(1) The requirements of this section shall not apply to the fuel combusted in a mobile source.

(2) This section shall not apply to any person storing fuel in the state of Connecticut for shipment, sale and use outside of the state of Connecticut.

(3) Fuel stored in the state of Connecticut that meets any applicable sulfur content limitation at the time it is stored in the state of Connecticut may be stored, offered for sale, sold, delivered or exchanged in trade for combustion in the state of Connecticut and combusted in the state of Connecticut even if the sulfur content limitation applicable at the time of storage has been changed subsequent to the date of storage.

(4) This section shall not apply to a person combusting fuel in fuel-burning equipment undergoing testing as part of a research and development operation.

(5) The requirements of this section shall not apply to:

- (A) Any person combusting fuel in a stationary source for which the fuel is subject to limitation under section 22a-174-19a of the Regulations of Connecticut State Agencies; or
- (B) Any person selling or storing fuel for sale to a person identified in subparagraph (A) of this subdivision.

(6) The requirements of this section shall not apply to any person who sells, supplies, offers for sale, stores for sale or combusts number two heating oil subject to the sulfur content limitations of section 16a-21a of the Connecticut General Statutes.

(7) Any fuel in equipment that is leased or rented outside of the state of Connecticut for use in Connecticut may be combusted in the state of Connecticut regardless of the sulfur content, provided that all refueling of such leased or rented equipment performed while in Connecticut complies with the fuel sulfur content limits of Table 19b-1 of this section.

(d) Fuel oil sulfur content limitations.

(1) No person shall store, offer for sale, sell, deliver or exchange in trade, for combustion in a stationary source in the state of Connecticut, fuel that contains sulfur in excess of the applicable limitation set forth in Table 19b-1 of this section, except as provided in subsection (c) or (e) of this section.

(2) No person shall combust fuel in a stationary source that contains sulfur in excess of the applicable limitation set forth in Table 19b-1 of this section, except as provided in subsection (c) or (e) of this section.

(3) Notwithstanding compliance with subdivision (1) or (2) of this subsection, the commissioner may, by permit or order, impose additional restrictions on any owner or operator to limit the emission of sulfur compounds, expressed as sulfur dioxide, from any stationary source combusting fuel if the commissioner determines that operation of such equipment interferes with the attainment or maintenance of any applicable ambient air quality standard.

Table 19b-1		
Fuel Type	Maximum Fuel Sulfur Content	
	Effective July 1, 2014 through June 30, 2018	Effective on and after July 1, 2018
Distillate fuel oil or distillate fuel oil blended with biodiesel fuel	500 ppm (0.05%) by weight	15 ppm (0.0015%) by weight
Residual oil or residual oil blended with biodiesel fuel	10,000 ppm (1.0 %) by weight	3000 ppm (0.3%) by weight
Aviation fuel combusted in a stationary source	3000 ppm (0.3%) by weight	3000 ppm (0.3%) by weight
Kerosene	400 ppm (0.04%) by weight	15 ppm (0.0015%) by weight

(e) Fuel shortage emergency.

(1) Under conditions of a fuel shortage emergency, as determined by the commissioner, the commissioner may approve in writing the sale or combustion of fuel with a sulfur content that exceeds the applicable limitation in Table 19b-1 of this section. Any person seeking an approval under this subsection shall submit a request in writing to the Bureau of Air Management, Director of Engineering and Enforcement. Such request shall include:

- (A) A detailed statement describing the reason for the fuel shortage and the acute nature of the shortage. A fuel shortage may be of a type for firing in a particular emission source or generally throughout the state;
- (B) A statement that the acute nature of the shortage is the only reason for the request; and
- (C) A signature of a responsible official as described in section 22a-174-2a(a) of the Regulations of Connecticut State Agencies.

(2) The commissioner may approve a request under this subsection provided:

- (A) The requester has provided sufficient information concerning the fuel shortage;
- (B) The request states that the acute nature of the shortage is the sole reason for the request;

- (C) The request is signed by a responsible official; and
- (D) Approval of the request will not create a condition that will cause imminent danger to the environment or public health.

(3) The commissioner shall notify the Administrator not later than five days after granting a request to sell or combust fuel that exceeds the limitations in Table 19b-1 of this section.

(4) In approving any request under this subsection, the commissioner shall specify, in writing, the period of time such suspension shall be in effect, provided such period of time shall not exceed 90 days.

(5) The provisions of this subsection shall be pre-empted when the Governor declares that an energy or fuel supply emergency exists.

(f) Compliance determinations.

(1) Any person selling fuel subject to a sulfur content limitation set forth in Table 19b-1 shall determine the sulfur content and quantity of each type of fuel sold.

(2) Any person selling fuel subject to a sulfur content limitation set forth in Table 19b-1 shall provide certification of the sulfur content of the fuel to each purchaser of fuel.

(3) Sulfur content shall be analyzed in accordance with American Society for Testing and Material (ASTM) test method D4294-10, *Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry*, or D7039-07, *Standard Test Method for Sulfur in Gasoline and Diesel Fuel by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry*, or the current active version thereof, and automatic sampling equipment shall conform to ASTM test method D4177-95(2010), *Standard Practice for Automatic Sampling of Petroleum and Petroleum Products*, or the current active version thereof.

(4) Any person may request the use of a method to analyze the sulfur content of fuel other than the method identified in subdivision (3) of this subsection, if the method is approved by a voluntary standards body such as ASTM or the International Standards Organization. Such a request shall name and describe the alternative method for which approval is sought, the approving organization, and shall be submitted to the commissioner and Administrator for review and approval. Such alternative method may not be the sole method used to determine the sulfur content of fuel until approved by the commissioner and the Administrator.

(g) Record keeping and reporting for fuel users and merchants.

(1) Persons selling and combusting fuels in Connecticut subject to the requirements of this section shall maintain records of information necessary for the commissioner to determine

compliance with the requirements of this section.

(2) Any person who sells fuel subject to the requirements of this section shall maintain records of the sulfur content of fuels sold, the heating value of such fuels and the quantities of fuels sold.

(3) Any person combusting fuel subject to the requirements of this section shall maintain records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient to satisfy the requirements of this subdivision if the certification or contract identifies:

- (A) The name of the fuel seller;
- (B) The type of fuel purchased;
- (C) The sulfur content of the fuel purchased; and
- (D) The method used to determine the sulfur content of the fuel purchased.

(4) All records made to demonstrate compliance with the requirements of this section shall be:

- (A) Made available to the commissioner to inspect and copy upon request; and
- (B) Maintained for five (5) years from the date such record is created.

Statement of Purpose

The primary purpose of this proposal is to reduce the sulfur content of fuel oils burned in stationary sources to reduce emissions of sulfur dioxide (SO₂), an air pollutant and a contributor to the formation of the pollutant fine particulate matter (PM_{2.5}). The reduction in SO₂ emissions is important to reduce visibility-impairing emissions that contribute to regional haze and protect the public health from the adverse health impacts of SO₂ and PM_{2.5} pollution.

Connecticut is a member of a regional planning organization, the Mid-Atlantic/Northeast Visibility Union (MANEVU), which coordinates regional haze planning efforts to comply with section 169A of the federal Clean Air Act. In 2007, recognizing that SO₂ is the main contributor to visibility impairment, the MANEVU states agreed to pursue fuel sulfur content limitations for distillate and residual fuel oils.

The significant new elements of this proposal are those of new section 22a-174-19b of the Regulations of Connecticut State Agencies (RCSA), which include fuel sulfur content restrictions for distillate, residual, kerosene and aviation fuels used in all non-mobile equipment such as boilers, turbines and engines. These new fuel sulfur content restrictions are much more stringent than those of current RCSA section 22a-174-19. RCSA section 22a-174-19 is a regulation of general applicability that currently includes fuel sulfur content restrictions higher than those proposed in RCSA section 22a-174-19b. The less stringent fuel sulfur content restrictions of RCSA section 22a-174-19 are eliminated in this proposal. RCSA section 22a-174-19a includes provisions to limit SO₂ emissions from large electric generating units and industrial boilers, and those requirements are not changed by this proposal. RCSA section 22a-174-5(a) includes clarifying language and RCSA section 22a-174-5(b)(1) adds an allowable test method.

The more stringent fuel sulfur content limitations will mainly impact fuel suppliers, who will need to obtain compliant fuels, maintain records of the sulfur content of fuel sold and provide a certification to purchasers concerning the sulfur content of fuel.

The proposal recognizes that Connecticut General Statutes (CGS) section 22a-198 regulates the sulfur content of fuel used in large electric generating units and industrial boilers, and the regulation does not revise the sulfur content limitations for those sources. The proposal also recognizes the authority of CGS section 16a-21a, as amended by the Connecticut General Assembly in the 2013 legislative session, to limit the sulfur content of home heating oil and off-road diesel fuel. The fuels regulated by CGS section 16a-21a are exempt from regulation under the proposal. However, under CGS section 16a-21a, the sulfur content of home heating oil is subject to the same sulfur content limitations as distillate fuel oil in new RCSA section 22a-174-19b, and the standards apply on the same schedule.