DISTRICT DEPARTMENT OF THE ENVIRONMENT

NOTICE OF PROPOSED RULEMAKING

Revisions to the Sulfur Content Requirements for Fuel Oil

The Director of the District Department of the Environment (the Department), pursuant to the authority set forth in the sections 5 and 6(b) of the District of Columbia Air Pollution Control Act of 1984, as amended, effective March 15, 1985 (D.C. Law 5-165; D.C. Official Code §§ 8-101.05 and 8-101.06(b) (2012 Supp.)); section 107(4) of the District Department of the Environment Establishment Act of 2005, effective February 15, 2006 (D.C. Law 16-51; D.C. Official Code § 8-151.07(4) (2012 Supp.)); Mayor's Order 98-44, dated April 10, 1998; and Mayor's Order 2006-61, dated June 14, 2006, hereby gives notice of the intent to adopt the following amendments to Chapter 5 and Chapter 8 of Title 20 (Environment) of the District of Columbia Municipal Regulations (DCMR) after a thirty (30) day public comment period. Further, these rules shall not become effective until approved by the Council of the District of Columbia, or forty-five (45) days after submission to the Council, not including Saturdays, Sundays, legal holidays, and days of Council recess, if the Council has not disapproved these rules.

The District is proposing this rulemaking to amend 20 DCMR § 801 and related definitions in § 899 to reduce the sulfur content of commercially available "home heating" fuel oils used in oil-burning combustion units in the District. Number two (No. 2) and lighter fuel oils (distillates) are generally used in residential, commercial, and municipal heating units, such as boilers and furnaces. Number two (No. 2) as well as numbers four (No. 4), five (No. 5), and heavier residual oils are used in industrial, commercial, and institutional (ICI) boilers. This rulemaking also proposes to ban the use of number five (No. 5) and heavier fuel oils, as there are no known users of these higher-polluting fuels in the District at this time. Finally, the District proposes to amend 20 DCMR § 502.6, related to fuel oil testing requirements, and is particularly interested in feedback or suggestions from stakeholders about the proposed testing methods.

Summary of the Proposed Amendments

Beginning on July 1, 2016, it will be unlawful to purchase, sell, offer for sale, store, transport, or use number two (No. 2) commercial fuel oil containing more than five hundred parts per million (500 ppm), or five one-hundredths percent (0.05%) by weight of sulfur; and number four (No. 4) commercial fuel oil containing more than two thousand five hundred parts per million (2,500 ppm) or twenty-five one-hundredths percent (0.25%) by weight of sulfur. Also, in July 2016, the use of residual fuel oil number five (No. 5) and heavier will be prohibited in the District. Beginning on July 1, 2018, it will be unlawful to purchase, sell, offer for sale, store, transport, or use number two (No. 2) commercial fuel oil containing more than fifteen parts per million (15 ppm) or fifteen ten-thousandths percent (0.0015%) by weight of sulfur. Fuel oils stored before the applicable compliance dates may be used after the applicable compliance date. This

rulemaking includes third-party sampling and testing requirements as well as record-keeping and reporting requirements.

Background

Commercial fuel oils are processed to meet various legal and regulatory requirements at refineries in places such as the Gulf of Mexico. Processed oil is barged or linked via underground steel pipes from refineries to terminals, where it is stored and blended. Nearby terminals in Maryland and Virginia are connected to pipelines owned by Colonial Pipeline or Plantation Pipe Line Company. Fuel oils are ultimately distributed to customers in the District by truck.

Distillate fuel oil is essentially the same refinery-produced liquid as diesel fuel. The only difference is that fuel oil is dyed red because it is not subject to the same taxes as diesel fuel used in vehicles. 26 C.F.R. § 48.4082-1 (2013). Since 2006, there has been a Federal limit of fifteen parts per million (15 ppm) on the sulfur content of highway diesel fuels. 66 Fed. Reg. 5001 (January 18, 2001).

Fuel oils are combusted primarily to heat buildings during winter months. The combustion of fossil fuels containing sulfur results in emissions of pollutants such as fine particulate matter and sulfur dioxide. Fine particulate matter can cause serious health effects and premature mortality in humans, and contribute to environmental effects such as acid deposition and eutrophication. 64 Fed. Reg. 35714 (July 1, 1999). Sulfur dioxide emissions oxidize in the atmosphere to form sulfate particles and are the most significant pollutant involved in the formation of regional haze. Sulfate particles account for the largest percentage of the total fine particle mass on the twenty percent (20%) haziest days in the mid-Atlantic and northeast region, 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*, MANE-VU Contribution Assessment, August 2006, p. 2-1.

This rulemaking will reduce emissions of fine particulate matter. The District is designated as a nonattainment area (and is currently seeking redesignation to attainment) under the 1997 annual national ambient air quality standard (NAAQS).

This rulemaking will also allow the District to meet its commitment to the Mid-Atlantic/Northeast Visibility Union (MANE-VU) to implement reasonable measures that are part of a coordinated course of action designed to assure reasonable further progress towards reducing regional haze. Regional haze is a visibility impairment caused when fine particles from manmade or natural sources scatter and absorb sunlight. 64 Fed. Reg. 35714 (July 1, 1999). Regional haze from manmade air pollution has reduced the visibility range in the eastern United States substantially, from an average of ninety miles to an average of between fifteen and twenty-five miles. *See* http://www.epa.gov/visibility/what.html.

In 1977, Congress amended the Federal Clean Air Act (CAA) by adding Section 169A (relating to visibility protection for Federal class I areas), which "declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in Class I areas which impairment results from manmade air pollution." 42 USCA § 7491(a)(1). The U.S. Environmental Protection Agency (EPA) promulgated its Regional Haze Rule in 1999 (64 Fed. Reg. 35714, July 1, 1999) and amended it in 2005 (70 Fed. Reg. 39104, July 6, 2005). EPA's regulations require all states, even those that do not contain a Federal Class I area, to submit a State Implementation Plan (SIP) revision 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. The regulations also encourage states to address haze through regional planning organizations. 64 Fed. Reg. 35714, 35720 (July 1, 1999).

The District accomplishes this objective through participation in MANE-VU. MANE-VU was formed by the Mid-Atlantic and Northeastern states, tribes, and federal agencies to coordinate regional haze planning activities for the region. The organization includes portions of Pennsylvania, Delaware, New Jersey, and New York, as inner zone states, as well as Connecticut, Maine, Maryland, Massachusetts, New Hampshire, Rhode Island, Vermont, and the District, as outer zone states. On June 20, 2007, MANE-VU adopted a tiered strategy to meet the requirement to make reasonable further progress toward reducing regional haze.

Once finalized, this regulation will be submitted to EPA as a SIP revision.

Public Participation

Comments on these proposed rule must be submitted, in writing, no later than thirty (30) days after the date of publication of this notice in the *D.C. Register* to Ms. Jessica Daniels, District Department of the Environment, Air Quality Division, 1200 First Street, NE, 5th Floor, Washington, D.C. 20002 or sent electronically to jessica.daniels@dc.gov. Copies of the proposed rule and ASTM methods adopted by reference may be obtained between the hours of 9:00 a.m. and 5:00 p.m. at the address listed above for a small fee to cover the cost of reproduction or on-line at http://ddoe.dc.gov.

All comments will be treated as public documents and may be made available for public viewing on the Department's website. When the Department identifies a comment containing copyrighted material, the Department will provide a reference to that material on the website. The Department will look for the commenter's name and address on the comment. If a comment is sent by electronic mail ("email"), the email address will be automatically captured and included as part of the comment that is placed in the public record to be made available on the Department's website. If the Department cannot read a comment due to technical difficulties, and the email address contains an error, the Department may not be able to contact the commenter for clarification and may not be able to consider the comment. Including the commenter's name and contact information in the comment will avoid this difficulty.

20 DCMR, CHAPTER 5, AIR QUALITY – SOURCE MONITORING AND TESTING, SECTION 502.6

502 SAMPLING, TESTS, AND MEASUREMENTS is amended to read as follows:

502.6 Testing of fuel oil shall be undertaken in accordance with the most current version of the following methods, as appropriate for the application:

(a) To obtain fuel samples:

(1) ASTM D 4057, "Practice for Manual Sampling of Petroleum and Petroleum Products;" or

(2) ASTM D 4177, "Standard Practice for Automatic Sampling of Petroleum and Petroleum Products;"

(b) To determine the sulfur concentration of fuels:

(1) ASTM D 2622, "Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry;"

(2) ASTM D 4294, "Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry;" or

(3) ASTM D 5453, "Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil by Ultraviolet Fluorescence;" and

(c) Other methods developed or approved by the Department or the Administrator of the United States Environmental Protection Agency (EPA).

20 DCMR, CHAPTER 8, AIR QUALITY – ASBESTOS, SULFUR, NITROGEN OXIDES, AND LEAD, SECTION 801

801 SULFUR CONTENT OF FUEL OILS is amended to read as follows:

801.1 The purchase, sale, offer for sale, storage, transport, or use of fuel oil that contains more than one percent (1%) sulfur by weight in the District is prohibited, if the fuel oil is to be burned in the District.

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801.2 On and after July 1, 2016, commercial fuel oil that is purchased, sold, offered, stored, transported, or used in the District shall meet the following requirements, unless otherwise specified in § 801.5:

(a) Number two (No.2) fuel oil shall not contain sulfur in excess of five hundred parts per million (500 ppm) by weight, or five one-hundredths percent (0.05%) by weight;

(b) Number four (No. 4) fuel oil shall not contain sulfur in excess of two thousand five hundred parts per million (2,500 ppm) by weight, or twenty-five one-hundredths percent (0.25%) by weight; and

(c) Number five (No. 5) and heavier fuel oils are prohibited.

801.3 On and after July 1, 2018, the purchase, sale, offer for sale, storage, transport, or use of number two (No. 2) commercial fuel oil is prohibited if it contains more than fifteen parts per million (15 ppm) or fifteen ten-thousandths percent (0.0015%) by weight of sulfur, unless otherwise specified in § 801.5.

801.4 Fuel oil that was stored in the District by the ultimate consumer prior to the applicable compliance date in §§ 801.2 or 801.3, which met the applicable maximum sulfur content at the time it was stored, may be used in the District after the applicable compliance date.

801.5 With the written concurrence of the Administrator of the United States Environmental Protection Agency (EPA), the Department may temporarily suspend or increase the applicable limit or percentage by weight of sulfur content of a commercial fuel oil set forth in §§ 801.2 or 801.3 if both of the following occur:

(a) The Department receives a written request for a suspension or increase on the basis that compliant commercial fuel oil is not reasonably available; where the request must include both of the following:

(1) The reason compliant commercial fuel oil is not reasonably available; and

(2) The duration of time for which the suspension or increase is requested and the justification for the requested duration; and

(b) The Department determines that an insufficient quantity of compliant commercial fuel oil is reasonably available.

801.6 If a temporary increase in the applicable limit of sulfur content is granted under § 801.5:

(a) The Department will limit a suspension or increase in the applicable limit granted to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available; and

(b) The sulfur content limit for number two (No. 2) and lighter fuel oils may not exceed five hundred parts per million (500 ppm).

801.7 Subsections 801.2 and 801.3 shall not apply to:

(a) A person who uses equipment or a process to reduce the sulfur emissions from the burning of a fuel oil, provided that the emissions may not exceed those that would result from the use of commercial fuel oil that meets the applicable limit or percentage by weight specified in §§ 801.2 or 801.3;

(b) The owner or operator of a stationary source where equipment or a process is used to reduce the sulfur emissions from the burning of a fuel oil, provided that the emissions may not exceed those that would result from the use of commercial fuel oil that meets the applicable limit or percentage by weight specified in §§ 801.2 or 801.3; and

(c) Commercial fuel oil that is transported through the District but is not intended for purchase, sale, offering, storage, or use in the District.

801.8 For the purpose of determining compliance with the requirements of this section, the sulfur content of fuel oil shall be determined in accordance with the sample collection, test methods, and procedures specified under § 502.6 (relating to sulfur in fuel oil).

801.9 The following recordkeeping and reporting requirements shall apply to any purchase, sale, offering for sale, storage, transportation, or use of commercial fuel oil in the District:

(a) On or after the applicable compliance dates specified in §§ 801.2 and 801.3, at the time of delivery, the transferor of commercial fuel oil shall provide to the transferee an electronic or paper record of the fuel data described as follows, which must legibly and conspicuously contain the following information:

(1) The date of delivery;

(2) The name, address, and telephone number of the transferor;

(3) The name and address of the transferee;

(4) The volume of fuel oil being sold or transferred;

(5) The fuel oil grade;

(6) The sulfur content of the fuel oil as determined using the sampling and testing methods specified in § 801.8;

(6) The date and time the tested sample was taken;

(7) The location of the fuel oil during testing; and

(8) The type of test or test method performed;

(b) All applicable records required under paragraph (a) shall be maintained in electronic or paper format for not less than three (3) years;

(c) An electronic or paper copy of the applicable records required under paragraph (a) shall be provided to the Department upon request;

(d) The ultimate consumer shall maintain the applicable records required under (a) in electronic or paper format for not less than three (3) years, unless the transfer or use of the fuel oil occurs at a private residence; and

(e) General fuel specifications are not acceptable for the datum in paragraph (a).

20 DCMR, CHAPTER 8, AIR QUALITY – ASBESTOS, SULFUR, NITROGEN OXIDES, AND LEAD, SECTION 899

899 DEFINITIONS AND ABBREVIATIONS is amended to add the following definitions:

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.

Commercial fuel oil – A fuel oil specifically produced, manufactured for sale, and

intended for use in fuel burning equipment. A mixture of commercial fuel oil with noncommercial fuel where greater than fifty percent (50%) of the heat content is derived from the commercial fuel oil portion is considered a commercial fuel oil.

Distributor – A person who transports, stores or causes the transportation or storage of commercial fuel oil or gasoline at any point between a refinery, a blending facility or terminal and a retail outlet, wholesale purchaser-consumer's facility or ultimate consumer. The term includes a refinery, a blending facility, or a terminal.

Noncommercial fuel – A gaseous or liquid fuel generated as a byproduct or waste product that is not specifically produced and manufactured for sale. A mixture of a noncommercial fuel and a commercial fuel oil when at least fifty percent (50%) of the heat content is derived from the noncommercial fuel portion is considered a noncommercial fuel.

Retail outlet – An establishment where commercial fuel oil or gasoline is sold or offered for sale to the ultimate consumer for use in a combustion unit or motor vehicle, respectively.

Terminal – A facility that is capable of receiving commercial fuel oil or gasoline in bulk, that is, by pipeline, barge, ship or other transport, and where commercial fuel oil or gasoline is sold or transferred into trucks for transportation to retail outlets, wholesale purchaser-consumer’s facilities, or ultimate consumers. The term includes bulk gasoline terminals and bulk gasoline plants.

Transferee – A person who is the recipient of a sale or transfer. The term includes the following:
(a) Terminal owner or operator;
(b) Carrier;
(c) Distributor;
(d) Retail outlet owner or operator; and
(e) Ultimate consumer.

Transferor – A person who initiates a sale or transfer. The term includes the following:
(a) Refinery owner or operator;
(b) Terminal owner or operator;
(c) Carrier;
(d) Distributor; and
(e) Retail outlet owner or operator.

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