6 NYCRR Subpart 225-1, Fuel Composition and Use – Sulfur Limitations

Express Terms Summary

The Department of Environmental Conservation (Department) is proposing to revise 6 NYCRR Subpart 225-1, “Fuel Composition and Use - Sulfur Limitations”. Subpart 225-1 imposes limits on the sulfur content of distillate oil, residual oil, and coal fired in stationary sources. The revisions to Subpart 225-1 will add process sources and incinerators as stationary emission sources to which these revisions will apply throughout New York State. The revisions will also lower the sulfur-in-fuel limit for waste oil and correct minor typographical errors. The revisions will remove 6 NYCRR subdivision 225-1.3(e) which cites section 117 of article 5 of the Energy Law. This provision states that the Governor may pre-empt the requirements of 6 NYCRR Subpart 225-1 if an energy or fuel supply emergency is declared. Finally, the revisions will remove paragraph 225-1.4(c)(2) which has been deemed contradictory and less stringent than the sulfur-in-fuel requirements of the table in subdivision 225-1.2(b) of this Subpart.

6 NYCRR Subpart 225-1, Fuel Composition and Use-Sulfur Limitations

Revised Express Terms

(Statutory authority: Environmental Conservation Law, Sections 1-0101, 3-0301, 19-0103, 19-0105, 19-0301, 19-0303, 19-0305, 19-0325, 19-0907, 71-2103, 71-2105)

Sections 225-1.1 through 225-1.3 are amended as follows:

Section 225-1.1 Definitions.

(a) To the extent that they are not inconsistent with the specific definitions in Subdivision (b) of this Section, the general definitions of Part 200 and Part 201 of this Title apply.

(b) For the purpose of this Subpart, the following definitions also apply:

(1) Fuel distributor. Any person who transports, stores, or causes the transportation or storage of distillate oil, residual oil, waste oil, and/or coal at any point between a refinery/mine or importer's facility and a retail outlet or wholesale purchaser-consumer's facility.

Section 225-1.2 Sulfur-in-fuel limitations. No person will sell, offer for sale, purchase, or fire any fuel and/or waste oil that[which] exceeds the sulfur-in-fuel limitations of this Section, except as provided in Sections 225-1.3 or 225-1.4 of this Subpart. For the purposes of this Subpart, liquid bio-fuels, other than waste oils, [will be]are required to meet the sulfur-in-fuel standards of [either number two heating oil or] distillate oil.

(a) Owners and/or operators of any stationary combustion installation that fires[fire(s)] coal and has a total heat input greater than 250 million Btu per hour, where an application for a permit was received by the department after March 15, 1973, and the stationary combustion installation is not located in New York City or Nassau, Rockland or Westchester Counties, are limited to the firing of coal with 0.60 pound of sulfur per million Btu gross heat content or less. If two or more emission sources are connected to a common air cleaning device and/or emission point, the total heat input for such emission point is the sum of the total heat input of all emission sources[which] that are operated simultaneously and connected to the common air cleaning device and/or emission point; or

(b)[Owners and/or operators of any stationary combustion installation that fires either solid fuels or oil are limited to the firing of solid fuels or oil with a sulfur content listed in the table below through June 30, 2014:

Area	Liquid fuel (percent sulfur by weight)		Solid fuel (pounds of sulfur per million Btu gross heat content)
	Residual	Distillate*	
New York City	0.30	0.20	0.2 MAX
Nassau, Rockland and Westchester Counties	0.37	0.37	0.2 MAX
Suffolk County: Towns of Babylon, Brookhaven, Huntington, Islip, and Smith Town	1.00	1.00	0.6 MAX
Erie County: City of Lackawana and South Buffalo**	1.10	1.10	1.7 MAX and 1.4 AVG***
Niagara County and remainder of Erie County	1.50	1.50	1.7 MAX and 1.4 AVG***
Remainder of State	1.50	1.50	2.5 MAX, 1.9 AVG***, and 1.7 AVG (ANNUAL)****

* Except for number two heating oil as stated in Subdivision (f) of this Section.
** South Buffalo is defined as the area in the City of Buffalo south of a line from the intersection of IR 190 and Route 5 and proceeding east along IR 190 to the city line.
*** Averages are computed for each emission source by dividing the total sulfur content by the total gross heat content of all solid fuel received during any consecutive three-month period.
**** Annual averages are computed for each emission source by dividing the total sulfur content by the total gross heat content of all solid fuel received during any consecutive 12-month period.

(c)] Owners and/or operators of any stationary combustion installation that fires solid fuels are limited to the firing of solid fuel with a sulfur content listed in the table below. On and after July 1, 2023, all emission sources, including process and incineration sources that fire solid fuels, are limited to the firing of solid fuel with a sulfur content listed in the table below[on or after July 1, 2014]:

Area	Solid fuel (pounds of sulfur per million Btu gross heat content)
New York City, Nassau, Rockland and Westchester Counties	0.2 MAX
[Nassau, Rockland and Westchester Counties	0.2 MAX]
Suffolk County: Towns of Babylon, Brookhaven, Huntington, Islip, and Smith Town	0.6 MAX
Erie and Niagara Counties	1.7 MAX, 1.4 AVG*
Remainder of State	2.5 MAX, 1.9 AVG*, and 1.7 AVG (ANNUAL)**

* Averages are computed for each emission source by dividing the total sulfur content by the total gross heat content of all solid fuel received during any consecutive three-month period.

** Annual averages are computed for each emission source by dividing the total sulfur content by the total gross heat content of all solid fuel received during any consecutive 12-month period.

[(d)](c) Owners and/or operators of any stationary combustion installation that fires residual oil are limited to the firing of residual oil with a sulfur content listed in the table below. On and after July 1, 2023, all emission sources, including process and incineration sources that fire residual oil, are limited to the firing of residual oil with a sulfur content listed in the table below[on or after July 1, 2014]:

Area	Residual Oil (percent sulfur by weight)
New York City	0.30
Nassau, Rockland and Westchester Counties	0.37
Remainder of State	0.50

[(e) Owners and/or operators of any stationary combustion installation that fires residual oil are limited to the purchase of residual oil with a sulfur content listed in the table below on or after July 1, 2014, and are limited to the firing of residual oil with a sulfur content listed in the table below on or after July 1, 2016:

Area	Residual Oil (percent sulfur by weight)
Suffolk County: Towns of Babylon, Brookhaven, Huntington, Islip, and Smith Town	0.50
Erie and Niagara Counties	0.50
Remainder of State	0.50

(f) Owners and/or operators of commercial, industrial, or residential emission sources that fire number two heating oil on or after July 1, 2012 are limited to the purchase of number two heating oil with 0.0015 percent sulfur by weight or less.

(g) Owners and/or operators of a stationary combustion installation that fires distillate oil other than number two heating oil are limited to the purchase of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2014.

(h)](d) Owners and/or operators of any stationary combustion installation that fires distillate oil[including number two heating oil] are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less[on or after July 1, 2016]. On and after July 1, 2023, all emission sources, including process and incineration sources that fire distillate oil, are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less.

[(i)](e) Owners and/or operators of any emission source[stationary combustion installation] that fires waste oil [on or after July 1, 2014] are limited to the firing of waste oil with 0.75 percent sulfur by weight or less. On and after July 1, 2023, owners and/or operators of any emission source that fires waste oil are limited to the firing of waste oil with 0.25 percent sulfur by weight or less.

Section 225-1.3 Exceptions contingent upon fuel shortage.

(a) Upon application by a facility owner or a fuel distributor the department may issue an order granting a temporary exception from the provisions of this Subpart where it can be shown, to the department's satisfaction, that there is an insufficient supply of conforming fuel, either:

(1) of the proper type required for firing in a particular emission source; or

(2) generally, throughout an area of the State.

(b) The New York State Energy Research and Development Authority must certify that there exists an insufficient supply of fuel[which] that conforms to the standards in this Subpart before a sulfur-in-fuel exception may be granted under this Subdivision.

(c) The department may grant a sulfur-in-fuel exception contingent upon a fuel shortage for a period not longer than 45 days.

(d) The department may grant a sulfur-in-fuel exception contingent upon a fuel shortage for a period longer than 45 days, but not longer than one year, only after a public hearing is held to gather information relevant to such an exception. The applicant for the exception must publish notice of such hearings, in a form acceptable to the department, in a newspaper of general circulation in the area for which the exception is sought. The applicant will bear the cost of publication of the notice, of the hearing transcript, and for rental of space in which the hearing is conducted.

[(e) The department recognizes that, pursuant to section 117 of article 5 of the Energy Law, provisions of this Subpart may be pre-empted when the Governor declares that an energy or fuel supply emergency exists or is impending.]

Section 225-1.4 Variances.

(a) Fuel mixtures or equivalent emission rate variances. Fuels with sulfur content greater than that allowed by this Subpart may be fired when the facility owner can demonstrate that sulfur dioxide emissions do not exceed the value for S calculated using the following equation: $S = (1.1AM + 2BT)/(M + T)$

where:

S = Allowable sulfur dioxide emission (in pounds per million Btu)
A = Sulfur in oil allowed by Section 225-1.2 of this Subpart (in percent by weight)
B = Average sulfur in solid fuel allowed by Section 225-1.2 of this Subpart (in pounds of sulfur per million Btu gross heat content)
M = Percent of total heat input from liquid fuel including waste oil
T = Percent of total heat input from solid fuel (including coal, coke, wood, wood waste, and refuse-derived fuel)

Fuel mixtures and equivalent emission rate variances only apply to processes or stationary combustion installations. Compliance will be based on the total heat input from all fuels fired,

including gaseous fuels and waste oil. Any process or stationary combustion installation owner who chooses to fire a fuel mixture pursuant to this Subdivision is subject to the emission and fuel monitoring requirements of Section 225-1.5 of this Subpart.

(b) Experiments variance. Upon application, the department may issue a variance allowing the sale, offering for sale, purchase and firing of fuel having a sulfur content in excess of the limits imposed by this Subpart, where such fuel would be fired to demonstrate the performance of experimental equipment and/or process(es) for reducing sulfur compounds from an emission source.

(c) Coal and coke. In New York City and Nassau, Rockland and Westchester Counties, the commissioner will permit[:

(1)] the sale and the continued, but not increased, purchase and use of coal and coke for installations with a maximum operating heat input equal to or less than one million Btu per hour if coal and coke has been used continuously since December 31, 1967 and the maximum sulfur content does not exceed 0.6 pound per million Btu gross heat content[; or].

[(2) the sale, purchase and use of coal and coke for approved conversions of stationary combustion installations to the use of coal, and for new coal-fired stationary combustion installations, provided that the coal conversion or new stationary combustion installations meet all applicable air quality and State Environmental Quality Review requirements.]

Section 225-1.5 Emissions and fuel monitoring.

(a) The continuous monitoring provisions of this section apply to owners of stationary combustion installations:

(1) with a total heat input greater than 250 million Btu per hour. If two or more emission sources are exhausted through a common emission point, the total heat input for such an emission point is either the sum of the maximum operating heat inputs of all emission sources[which] that are operated simultaneously and exhausted through the common emission point, or the maximum operating heat input of any individual emission source operated independently and connected to the common emission point, whichever is greater;

(2) [which]that are equipped with approved sulfur dioxide control equipment; or

(3) [which]that are subject to a sulfur dioxide equivalent emissions rate for a fuel mixture pursuant to Subdivision 225-1.4(a) of this Subpart.

(b) [Instruments for continuously monitoring and recording]Continuous emission monitors (CEM) for sulfur compound emissions (expressed as sulfur dioxide) must be installed and operated at all times that the stationary combustion installation is in service. Such instruments must be operated in accordance with manufacturer's instructions, must satisfy the criteria in “performance specification 2”, appendix B, part 60 of title 40 of the Code of Federal Regulations (see Table 1, Section 200.9 of this Title), and must be acceptable to the department. Exceptions to these requirements are:

(1) stationary combustion installations where gaseous fuel is the only fuel fired; or

(2) stationary combustion installations, not including any equipped with sulfur dioxide control equipment, whose fuel (including waste oil) is subjected to representative sampling and sulfur analysis conducted in a manner approved by the department; or

(3) stationary combustion installations required to use the continuous monitoring specifications under 40 CFR part 75 (see Table 1, Section 200.9 of this Title).

(c) Measurements must be made daily of the rate of each fuel, including waste oil, fired. The gross heat content and ash content of each fuel, including waste oil, fired must be determined at least once each week. In the case of stationary combustion installations producing electricity for sale, the average electrical output and the hourly generation rate must also be measured.

(d) Owners and operators not required to install a CEM may demonstrate compliance with the sulfur-in-fuel limitations of this Subpart through the retention of fuel distributor receipts. The fuel distributor receipts must contain the amount of fuel and/or waste oil delivered and the certified sulfur content of the fuel and/or waste oil.

Section 225-1.6 Reports, sampling, and analysis.

(a) The department will require fuel analyses, information on the quantity of fuel, including waste oil, received, fired or sold, and results of stack sampling, stack monitoring, and other procedures (including retention of fuel distributor receipts) to ensure compliance with the provisions of this Subpart.

(b) (1) Any person who sells oil, waste oil, and/or coal must retain, for at least five years, records containing the following information:

(i) fuel analyses and data on the quantities of all oil, waste oil, and/or coal received; and

(ii) the names of all purchasers, fuel analyses, including waste oil, and data on the quantities of all oil, waste oil, and/or coal sold.

(2) Such fuel analyses must contain, as a minimum:

(i) data on the sulfur content, ash content, specific gravity, and heating value of residual oil;

(ii) data on the sulfur content, specific gravity, and heating value of distillate oil and/or waste oil; and/or

(iii) data on the sulfur content, ash content, and heating value of coal.

(c) Sampling, compositing, and analysis of fuel samples, including waste oil, must be done in accordance with methods acceptable to the department.

(d) Facility owners or fuel distributors required to maintain and retain records pursuant to this Subpart must make such records available for inspection by the department.

(e) Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the department, and must be retained for at least five years. The owner of a Title V facility must furnish to the department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the department.

(f) Facility owners subject to this Subpart must submit a written report of the fuel sulfur content exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable equivalent emission rate, and the nature and cause of such exceedances if known, for each calendar quarter, within 30 days after the end of any quarterly period in which an exceedance[s] takes place.

Section 225-1.7 Severability.

Each provision of this Subpart[Part] shall be deemed severable, and in the event that any provision of this Subpart[Part] is held to be invalid, the remainder of this Subpart[Part] shall continue in full force and effect.

6 NYCRR Subpart 225-1, Fuel Composition and Use - Sulfur Limitations
Revised Regulatory Impact Statement Summary

INTRODUCTION

The New York State Department of Environmental Conservation (Department) is adopting revisions to 6 New York Codes, Rules and Regulations (NYCRR) Subpart 225-1, "Fuel Composition and Use - Sulfur Limitations" (Subpart 225-1). Subpart 225-1 imposes limits on the sulfur content of distillate oil, residual oil, and coal fired in stationary sources. The Department is adopting these revisions to both implement a statutory requirement and meet our obligations to reduce air pollution. The revisions to Subpart 225-1 will be a component of the State Implementation Plan (SIP) for New York State (NYS) directed at attainment of the particulate matter less than or equal to 2.5 microns in diameter (PM-2.5) national ambient air quality standard (NAAQS), the sulfur dioxide (SO_2) NAAQS and the Department's obligations under the regional haze SIP submitted to U.S. Environmental Protection Agency (EPA) on March 15, 2010. This is a requirement flowing from the State's obligations under the Clean Air Act (CAA). This is not a mandate on local governments. It applies to any entity that owns or operates a subject stationary source. These revisions do not regulate transportation fuel.

The revisions to Subpart 225-1 add process sources and incinerators as stationary emission sources to which these revisions apply in NYS. The revisions also lower the sulfur-in-fuel limit for waste oil and correct minor typographical errors. Finally, the revisions remove subdivision 225-1.3(e) which cites section 117 of article 5 of the Energy Law.

STATUTORY AUTHORITY

The following Sections of the Environmental Conservation Law (ECL) allow the Department to promulgate and implement the proposed regulation: Section 1-0101, Section 3-0301, Section 19-0103, Section 19-0105, Section 19-0301, Section 19-0303, Section 19-0305, Section 19-0325, Section 19-0907, Section 71-2103, and Section 71-2105.

LEGISLATIVE OBJECTIVES

Article 19 of the ECL was adopted to safeguard the air resources of NYS from pollution. To facilitate this purpose, the Legislature bestowed specific powers and duties on the Department including the power to formulate, adopt, promulgate, amend, and repeal regulations for preventing, controlling or prohibiting air pollution. This authority also specifically includes promulgating rules and regulations for preventing, controlling or prohibiting air pollution in such areas of the State as shall or may be affected by air pollution, and provisions establishing areas of the State and prescribing for such areas (1) the degree of air pollution or air contamination that may be permitted therein, and (2) the extent to which air contaminants may be emitted to the air by any air contamination source. In addition, this authority also includes the preparation of a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of any new air pollution recognizing various requirements for different areas of the State. The legislative objectives underlying the above statutes are directed toward protection of the environment and public health.

NEEDS AND BENEFITS

Elevated PM-2.5 and PM-10 levels are of concern for the New York City metropolitan area. PM-2.5 and PM-10 consist of microscopic solid or liquid particles and is the major cause of the regional haze issue. PM-2.5 and PM-10 can be emitted directly from stationary sources or comprised of nitrate and sulfate particles formed through reactions involving NO_x and SO_2 in the atmosphere. These particles are small enough to be inhaled into the lungs and can even enter the bloodstream. Ongoing scientific studies show that particulate inhalation, similarly to ozone, leads to health problems such as coughing, difficulty breathing, aggravated asthma, and a higher likeliness for other respiratory disorders. Studies have also shown that elevations in PM-2.5 and PM-10 concentrations are associated with such cardiovascular threats as irregular heartbeat and non-fatal heart attacks. Increased PM-2.5 and PM-10 exposure may even cause premature death in those with existing heart or lung disease.

The revisions to Subpart 225-1 are intended to reduce the emission of SO_2 that are the precursors of PM below the present levels and to comply with the mandates specified under ECL Section 19-0325. Existing regulations and emission control programs have been successful in the past at reducing these emissions. Regulatory efforts such as the Acid Rain program, past state and federal fuel sulfur limitations for stationary and mobile sources, and efforts like the Clean Air Interstate Rule and the Cross-State Air Pollution Rule have had a significant effect on air quality and health. The new sulfur-in-fuel limits in this rule are expected to further reduce monitored values of SO_2 and maintain attainment of the NAAQS.

Regional haze refers to the presence of light-inhibiting pollutants in the atmosphere. These particles and gases scatter or absorb light to cause a net effect referred to as “light extinction.” This light extinction occurs across the sight path of an observer, thus leading to a hazy condition. Emissions of pollutants such as PM-2.5, PM-10, and SO_2 are also primary contributors to visibility problems. These pollutants lend themselves to being transported great distances once they enter the atmosphere. Accordingly, sources contribute to visibility impairment in Class I areas far downwind of their locations, thereby necessitating a regional approach to solving the haze issue.

Applicability to process and incineration sources

As noted above, reducing sulfur in oil in NYS will reduce PM-2.5, PM-10, and SO_2, emissions. Such reductions will provide both health and visibility improvements and help NYS meet its obligations under the CAA. Under the current regulation, process and incineration sources are required to purchase compliant fuels when buying from distributors in NYS. However, these process and incineration sources may purchase higher sulfur content fuel from out-of-state distributors. This rulemaking will require that process and incineration sources only combust compliant fuels after July 1, 2023.

Lowering sulfur content requirement of waste oil

Over the past several years more and more engine lubricating oils have been manufactured from natural gas. These "synthetic" oils have virtually no sulfur content. The increased use of synthetic oils has caused the overall sulfur content of waste oil to decline. Based on data collected

from several sources[1] (several million gallons of waste oil were tested for sulfur content) the waste oil sulfur content between 2016 and 2017 averaged at or below 0.25 percent by weight. The Department believes the sulfur content of waste oil will continue to decrease slightly over the next several years. Therefore, the Department has determined that the current waste oil sulfur content limit should be reduced from 0.75 percent by weight to 0.25 percent by weight. Compliance with the proposed waste oil sulfur content limit will be required after July 1, 2023.

Removal of subdivision 225-1.3(e) from the regulation

This subdivision cites section 117 of article 5 of the Energy Law. This section of the Energy Law allows the Governor to pre-empt the requirements of Subpart 225-1 if an energy or fuel supply emergency is declared. The Department has determined that authority to declare an emergency lies within the Energy Law and not this regulation and therefore is redundant in this regulation.

Removal of paragraph 225-1.4(c)(2) from this regulation

This paragraph is outdated and less stringent than the sulfur-in-fuel requirements of the table in subdivision 225-1.2(b) of this Subpart. Therefore, the paragraph is being removed from the regulation.

Stakeholder Meeting

The Department held a stakeholder webinar on January 29th, 2019 to discuss proposed revisions to Subpart 225-1. The Department solicited comments on the proposed rule from the stakeholders. The stakeholder webinar consisted of attendees from the regulated community affected by the proposed regulation, consultants (both technical and legal), interested environmental groups, and the environmental justice communities.

COSTS

Costs to Regulated Parties and Consumers:

The Department does not anticipate that this proposed change will increase fuel costs to process and incineration sources. The distillate oil pipeline changed over to 15 ppm sulfur distillate oil in 2011 in anticipation of the 2013 Subpart 225-1 changes requiring home heating oil and stationary combustion sources to fire 15 ppm oil.

A NYSERDA report[2] indicates that the oil refining industry has almost completely changed over to the production of 15 ppm distillate oil. Using data from the 2015 emissions inventory forward, the Department has confirmed that process and incineration sources subject to Title V are burning 15 ppm sulfur content fuels. Accordingly, the Department does not anticipate any increase in fuel costs for these sources.

[1] Sulfur in waste oil records received from the following companies: Sheldon Oil Services 5/16 – 7/17, Safety Kleen 2/17 – 12/17, and Norlite 1/17 – 12/17

[2] Low sulfur Home Heating Oil Demonstration Project Summary Report, Energy Research Center, Inc., and Brookhaven National Laboratories, BNL-74956-2005-IR, June 2005

The Department does not anticipate an increase in cost for purchasers/end users of waste oil based on the proposed reduction in the waste oil sulfur content limit from 0.75% to 0.25%. The waste oil sulfur content is reducing based on the increased use of synthetic oils that contain minimal to zero sulfur compounds. Thus, the actual surveyed data shows that the sulfur content of waste oil has been steadily decreasing over the past several years.

Costs to State and Local Governments:

Based on the Department's permitting data, no state nor local government facilities will be affected by these proposed regulatory changes. Therefore, the Department does not anticipate any additional costs will be incurred by state and local governments associated with these revisions. Also, no new recordkeeping, reporting, or other requirements will be imposed on state and local governments based on this rulemaking.

Costs to the Regulating Agency:

The Department will encounter some initial administrative costs associated with the application review and permitting of the new sulfur-in-fuel limits for process sources, incinerators, and the new waste oil sulfur content limit. No additional monitoring, recordkeeping, or reporting requirements are being proposed under this rulemaking. Therefore, no additional costs will be incurred by the regulating agency based on these factors.

LOCAL GOVERNMENT MANDATES

This is not a mandate on local governments. Local governments have no additional compliance obligations as compared to other subject entities. Also, no additional monitoring, recordkeeping, reporting, or other requirements will be imposed on local governments under this rulemaking.

PAPERWORK

The proposed changes to Subpart 225-1 will create no additional paperwork for facilities currently subject to the requirements of this rule. The facilities that will become subject to this rule will be required to maintain fuel receipts.

DUPLICATION

The proposed revisions to Subpart 225-1 do not duplicate, overlap, or conflict with any other State or federal requirements.

ALTERNATIVES

The Department evaluated the following alternatives:

(1) Take no action: This alternative could prevent NYS from complying with its obligations under the CAA. If the Department does not implement this regulation, it would not be able to meet its obligations to maintain attainment of the PM-2.5 NAAQS in NYS. Also, without the promulgation of Subpart 225-1, NYS would not be reducing its regional haze impacts in the northeast. The reduction

in sulfur-in-fuel waste oil limitation and inclusion of process sources and incinerators will directly result in reductions of SO_2, PM-10, and PM-2.5. Reductions of these air contaminates will aid NYS in meeting both its attainment goals for PM-2.5 and reduce the State's regional haze impact. This alternative would prevent the correction of any existing typographical errors.

(2) Partial implementation: This alternative would allow process and incineration sources and or waste oil firing sources to purchase higher sulfur content fuels or waste oils from out-of-state retailers. In either case, this alternative could prevent NYS from complying with its obligations under the CAA and prevent reductions of SO_2, PM-10, and PM-2.5 emissions.

FEDERAL STANDARDS

The revisions to Subpart 225-1 do not exceed any minimum federal standards. The reductions will lower the standards to the point where they would be equivalent to the sulfur-in-fuel standards of both 40 CFR 60 New Source Performance Standards and 40 CFR 63 National Emission Standards for Hazardous Air Pollutants.

COMPLIANCE SCHEDULE

The rule takes effect 30 days after filing notice of adoption with the New York State Department of State. Compliance with the proposed waste oil sulfur content limit will be required after July 1, 2023.

6 NYCRR Subpart 225-1, Fuel Composition and Use - Sulfur Limitations
Revised Regulatory Impact Statement

INTRODUCTION

The New York State Department of Environmental Conservation (Department) is proposing to revise 6 New York Codes, Rules and Regulations (NYCRR) Subpart 225-1, "Fuel Composition and Use - Sulfur Limitations (Subpart 225-1)". Subpart 225-1 imposes limits on the sulfur content of distillate oil, residual oil, and coal fired in stationary sources. The Department is proposing these revisions to both implement a statutory requirement and meet our obligations to reduce air pollution. The revisions to Subpart 225-1 will be a component of the State Implementation Plan (SIP) for New York State (NYS) directed at attainment of the particulate matter less than or equal to 2.5 microns in diameter (PM-2.5) national ambient air quality standard (NAAQS), the sulfur dioxide (SO_2) NAAQS and the Department's obligations under the regional haze SIP submitted to U.S. Environmental Protection Agency (EPA) on March 15, 2010. This is a requirement flowing from the State's obligations under the Clean Air Act (CAA). This is not a mandate on local governments. It applies to any entity that owns or operates a subject stationary source. This proposal will not regulate transportation fuel.

The revisions to Subpart 225-1 add process sources and incinerators as stationary emission sources to which these revisions will apply in NYS. The revisions also lower the sulfur-in-fuel limit for waste oil and correct minor typographical errors. Finally, the revisions remove subdivision 225-1.3(e) which cites section 117 of article 5 of the Energy Law and will remove paragraph 225-1.4(c)(2) pertaining to the coal and coke variance.

STATUTORY AUTHORITY

The statutory authority for the revisions to Subpart 225-1 is found in the following Sections of the Environmental Conservation Law (ECL): Section 1-0101, Section 3-0301, Section 19-0103, Section 19-0105, Section 19-0301, Section 19-0303, Section 19-0305, Section 19-0325, Section 19-0907, Section 71-2103, and Section 71-2105. In addition to the above statutory references, NYS is obligated by the Federal CAA to develop plans to meet federal NAAQS for particulate matter of less than 2.5 and 10 microns (PM-2.5 and PM-10) and SO_2 and a plan to reduce emissions that cause or contribute to regional haze.

Section 1-0101. This section declares it to be the policy of NYS to conserve, improve and protect its natural resources and environment and control air pollution to enhance the health, safety and welfare of the people of NYS and their overall economic and social wellbeing. Section 1-0101 further expresses, among other things, that it is the policy of NYS to coordinate the State's environmental plans, functions, powers and programs with those of the federal government and other regions and manage air resources to the end that the State may fulfill its responsibility as trustee of the environment for present and future generations. This section also provides that it is the policy of NYS to foster, promote, create and maintain conditions by which man and nature can thrive in harmony by providing that care is taken for air resources that are shared with other states.

Section 3-0301. This section empowers the Department to promulgate regulations to carry out

the environmental policy of NYS set forth in Section 1-0101 and specifically empowers the Department to cooperate with officials and representatives of the federal government, other states and interstate agencies regarding problems affecting the environment of NYS. Section 3-0301 specifically empowers the Department to provide for the prevention and abatement of air pollution.

Section 19-0103. This section declares that it is the policy of NYS to maintain the purity of air resources and to require the use of all available practical and reasonable methods to prevent and control air pollution in the state.

Section 19-0105. This section declares that it is the purpose of Article 19 of the ECL to safeguard the air resources of NYS under a program which is consistent with the policy expressed in Section 19-0103 and in accordance with other provisions of Article 19.

Section 19-0301. This section authorizes the Department to adopt regulations to prevent and control air pollution in such areas of the state that are affected by air pollution, develop a general comprehensive plan for the control and abatement of existing air pollution and for the control and prevention of new air pollution, and cooperate with government agencies and other states or interstate agencies with respect to the control of air pollution.

Section 19-0303. This section provides that the terms of any air pollution control regulation promulgated by the Department may differentiate between particular types and conditions of air pollution and air contamination sources.

Section 19-0305. This section authorizes the Department to enforce the codes, rules and regulations established in accordance with Article 19.

Section 19-0325. This section specifically mandates standards for the sulfur-in-fuel content of number 2 heating oil sold in New York State for use in residential, commercial, or industrial heating applications.

Section 19-0907. This section mandates the requirements for a NYS sulfur deposition control program.

Sections 71-2103 and 71-2105 provide for civil and criminal penalties for violations of regulations promulgated pursuant to Article 19.

Based on the above-referenced sections the Commissioner has very broad authority to regulate air pollution from portable or stationary sources, including the promulgation of 6 NYCRR Subpart 225-1, entitled “Fuel Composition and Use - Sulfur Limitations”.

LEGISLATIVE OBJECTIVES

Article 19 of the ECL was adopted to safeguard the air resources of NYS from pollution. To facilitate this purpose, the Legislature bestowed specific powers and duties on the Department including the power to formulate, adopt, promulgate, amend, and repeal regulations for preventing, controlling or prohibiting air pollution. This authority also specifically includes promulgating rules and regulations for preventing, controlling or prohibiting air pollution in such areas of the State as shall or

may be affected by air pollution, and provisions establishing areas of the State and prescribing for such areas (1) the degree of air pollution or air contamination that may be permitted therein, and (2) the extent to which air contaminants may be emitted to the air by any air contamination source. In addition, this authority also includes the preparation of a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of any new air pollution recognizing various requirements for different areas of the State. The legislative objectives underlying the above statutes are directed toward protection of the environment and public health. The proposed rulemaking will further the goals of the above referenced statutes by reducing air pollution, specifically PM-2.5, PM-10, and SO_2 emissions, all criteria pollutants and precursors to visibility-impairing haze from oil firing stationary sources throughout NYS. These reductions will reduce the health impacts of said pollutants by providing cleaner air. The Department will be using both that specific authority and its general authority to set standards for sulfur in all distillate and residual fuel sold in New York.

NEEDS AND BENEFITS

Elevated PM-2.5 and PM-10 levels are of concern for the New York City metropolitan area. PM-2.5 and PM-10 consist of microscopic solid or liquid particles and is the major cause of the regional haze issue. PM-2.5 and PM-10 can be emitted directly from stationary sources or comprised of nitrate and sulfate particles formed through reactions involving NO_x and SO_2 in the atmosphere. These particles are small enough to be inhaled into the lungs and can even enter the bloodstream. Ongoing scientific studies show that particulate inhalation, similarly to ozone, leads to health problems such as coughing, difficulty breathing, aggravated asthma, and a higher likeliness for other respiratory disorders. Studies have also shown that elevations in PM-2.5 and PM-10 concentrations are associated with such cardiovascular threats as irregular heartbeat and non-fatal heart attacks. Increased PM-2.5 and PM-10 exposure may even cause premature death in those with existing heart or lung disease.

The proposed changes to Subpart 225-1 are intended to reduce the emission of SO_2 that are the precursors of PM below the present levels and to comply with the mandates specified under ECL Section 19-0325. Existing regulations and emission control programs have been successful in the past at reducing these emissions. Regulatory efforts such as the Acid Rain program, past state and federal fuel sulfur limitations for stationary and mobile sources, and the Clean Air Interstate Rule and the Cross-State Air Pollution Rule have had a significant effect on air quality and health. The proposed sulfur-in-fuel limits in this rule are expected to further reduce monitored values of SO_2 and maintain attainment of the NAAQS.

Regional haze refers to the presence of light-inhibiting pollutants in the atmosphere. These particles and gases scatter or absorb light to cause a net effect referred to as “light extinction.” This light extinction occurs across the sight path of an observer, leading to a hazy condition. Emissions of pollutants such as PM-2.5, PM-10, and SO_2 are primary contributors to visibility problems. These pollutants lend themselves to being transported great distances once they enter the atmosphere. Accordingly, sources contribute to visibility impairment in Class I areas far downwind of their locations, thereby necessitating a regional approach to solving the haze issue.

Although no Class I areas exist within NYS, modeling has shown that emissions from sources within the State contribute to visibility impairment in nine downwind Class I areas: Lye Brook Wilderness Area, VT; Brigantine Wilderness Area, NJ; Presidential Range/Dry River Wilderness Area

and Great Gulf Wilderness Area, NH; Roosevelt/Campobello International Park, Acadia National Park, and Moosehorn Wilderness Area, ME; Shenandoah National Park, VA; and Dolly Sods Wilderness Area, WV. The pervasive, regional nature of haze throughout the eastern United States requires a unified strategy for reducing emissions among the states. For this purpose, EPA established five Regional Planning Organizations (RPOs). NYS is a member of the Mid-Atlantic/Northeast Visibility Union (MANE-VU) RPO and works with the other member states to develop regional haze strategies. NYS has the responsibility of controlling visibility-impairing pollution from its large number of oil-fired sources to the greatest extent possible as the emissions from these sources affect nine federal Class I areas.

There are many environmental benefits inherent in the reductions of PM-2.5, PM-10, and SO_2 that do not explicitly relate to visibility improvement. Although downwind rural and urban areas within NYS were not specifically targeted through the Regional Haze SIP, these areas can expect to benefit from improved air quality. In addition to experiencing improved visibility, forested areas such as the Adirondack Park will benefit from reduced acid deposition impacts, which are described below. These environmental impacts could also be expected to translate into economic benefits from increased public use of a cleaner and visibly healthier park.

Another benefit to lower PM-2.5, PM-10, and SO_2 emissions is a reduction in sulfuric acid. Sulfuric acid is formed through reaction of SO_2 which has entered the atmosphere. The acidic chemical returns to the surface through dry deposition after it has been incorporated into dust or smoke, which falls to the ground and may later mix with rainwater; or wet deposition, in which it returns to the surface as acid rain, snow, or fog. Acid deposition has many far-reaching ecological effects. It causes soil to lose its buffering capacity, which gives it the ability to neutralize some of, or all the acidity in rainwater. Acidic water will dissolve nutrients in the soil before plants and trees are able to use them to grow. Damaged leaves caused by acid deposition will decrease a plant’s ability to produce and store food, possibly leading to injury or death. Acid deposition also lowers the pH of lakes, rivers, and streams, effectively reducing the populations of fish and other aquatic organisms, and possibly leading to large shifts in the ecosystem. In addition, this deposition may inflict aesthetic damage to statues and buildings through the corrosion of bronze and the deterioration of paint and stone.

Applicability to process and incineration sources

As noted above, reducing sulfur in oil in NYS will reduce PM-2.5, PM-10, and SO_2, emissions. Such reductions will provide both health and visibility improvements and help NYS meet its obligations under the CAA. Under the current regulation, process and incineration sources are required to purchase compliant fuels when buying from distributors in NYS. However, these process and incineration sources may purchase higher sulfur content fuel from out-of-state distributors. This rulemaking will require that process and incineration sources only combust compliant fuels after July 1, 2023.

Lowering sulfur content requirement of waste oil

Over the past several years, more and more engine lubricating oils have been manufactured from natural gas. These "synthetic" oils have virtually no sulfur content. The increased use of synthetic oils has caused the overall sulfur content of waste oil to decline. Based on data collected

from several sources[1] (several million gallons of waste oil were tested for sulfur content), the waste oil sulfur content between 2016 and 2017 averaged at or below 0.25 percent by weight. The Department believes the sulfur content of waste oil will continue to decrease slightly over the next several years. Therefore, the Department has determined that the current waste oil sulfur content limit should be reduced from 0.75 percent by weight to 0.25 percent by weight. Compliance with the proposed waste oil sulfur content limit will be required after July 1, 2023.

Removal of subdivision 225-1.3(e) from the regulation

This subdivision cites section 117 of article 5 of the Energy Law. This section of the Energy Law allows the Governor to pre-empt the requirements of Subpart 225-1 if an energy or fuel supply emergency is declared. The Department has determined that authority to declare an emergency lies within the Energy Law and not this regulation. Therefore, including this subdivision is redundant and will be removed.

Removal of paragraph 225-1.4(c)(2) from this regulation

This paragraph is outdated and less stringent than the sulfur-in-fuel requirements of the table in subdivision 225-1.2(b) of this Subpart which are designed to provide emissions reductions. The table requires that solid fuel fired equipment in the New York City, Nassau, Rockland, and Westchester County areas meet a maximum 0.2 pounds of sulfur per million Btu gross heat content limitation. Paragraph 225-1.4(c)(2) only requires that new or converted emission sources proposing to fire coal or coke meet all applicable air quality and State Environmental Quality Review Act requirements and does not set a limit on the sulfur content of the coal or coke. Therefore, the paragraph is unnecessary and will be removed.

Stakeholder Meeting

The Department held a stakeholder webinar on January 29th, 2019 to discuss proposed revisions to Subpart 225-1. The Department solicited comments on the proposed rule from the stakeholders. The stakeholder webinar consisted of attendees from the regulated community affected by the proposed regulation, consultants (both technical and legal), interested environmental groups, and the environmental justice communities.

COSTS

Costs to Regulated Parties and Consumers:

The Department does not anticipate that this proposed change will increase fuel costs to process and incineration sources. The distillate oil pipeline changed over to 15 ppm sulfur distillate oil in 2011 in anticipation of the 2013 Subpart 225-1 changes requiring home heating oil and stationary combustion sources to combust 15 ppm oil.

During the previous rulemaking for Subpart 225-1, the Department evaluated the availability and production cost of distillate oil with sulfur-by-weight specifications of 15 ppm (ultra-low sulfur

[1] Sulfur in waste oil records received from the following companies: Sheldon Oil Services 5/16 – 7/17, Safety Kleen 2/17 – 12/17, and Norlite 1/17 – 12/17

distillate oil) in 2014 for the northeast U.S. that corresponds to the MANE-VU Region. The Department based this analysis on currently available refinery studies conducted for the National Oil Heat Research Alliance (NORA) and American Petroleum Institute (API), Energy Information Agency (EIA) data, and a public health benefits study conducted by Northeast States for Coordinated Air Use Management (NESCAUM). The NORA report concludes that as the demand for low and ultra-low sulfur distillate oil increases, the sources of supply and refining capacity for low and ultra-low sulfur distillate oil will be reconfigured for greater production capability. The API report projects that sufficient supplies of low sulfur distillate oil will be available to meet the demand that will be generated from the implementation of a low sulfur distillate oil standard in 2010 for NYS. The NESCAUM report[2] determined overall health care savings from the implementation of both low and ultra-low sulfur distillate oil standards. The Department also conducted a cost analysis based on information from this report in addition to the NORA and API reports and EIA data. Additionally, the Department considered the study conducted by the New York State Energy Research and Development Authority (NYSERDA) and Brookhaven National Laboratories[3] (NYSERDA report). The NYSERDA report finds overall savings to consumers in terms of reduced heating equipment service and maintenance costs from using low sulfur distillate oil.

The NYSERDA report also indicates that the oil refining industry has almost completely changed over to the production of 15 ppm distillate oil. Using data from the 2015 emissions inventory forward, the Department has confirmed that process and incineration sources subject to Title V are burning 15 ppm sulfur content fuels. Accordingly, the Department does not anticipate any increase in fuel costs for these sources.

The Department does not anticipate an increase in cost for purchasers/end users of waste oil based on the proposed reduction in the waste oil sulfur content limit from 0.75% to 0.25%. The waste oil sulfur content is reducing based on the increased use of synthetic oils that contain minimal to zero sulfur compounds. Thus, the actual surveyed data shows that the sulfur content of waste oil has been steadily decreasing over the past several years (see Needs and Benefits Section of this document).

Finally, the Department does not anticipate an increase in cost for purchasers of coal and/or coke in New York City, Nassau, Rockland or Westchester Counties based on the removal of the variance provisions of paragraph 225-1.4(c)(2) of this Subpart. The Department has not received a variance request for this provision over the past twenty-five years and does not anticipate receiving one anytime in the future. Facilities that propose to fire coal and/or coke in these geographical areas are already required to meet the sulfur-in-fuel limitations of subdivision 225-1.2(b) of this Subpart (maximum of 0.2 pounds of sulfur per million Btu gross heat content).

Costs to State and Local Governments:

Based on the Department's permitting data, no state nor local government facilities will be affected by these proposed regulatory changes. Therefore, the Department does not anticipate any additional costs will be incurred by state and local governments associated with this regulation. Also,

[2] Public Health Benefits of Reducing Ground-level Ozone and Fine Particle Matter in the Northeast U.S., A Benefits Mapping and Analysis Program (BenMAP) Study, NESCAUM, January 15, 2008
[3] Low sulfur Home Heating Oil Demonstration Project Summary Report, Energy Research Center, Inc., and Brookhaven National Laboratories, BNL-74956-2005-IR, June 2005

no new recordkeeping, reporting, or other requirements will be imposed on state and local governments based on this proposed rulemaking.

Costs to the Regulating Agency:

The Department will encounter some initial administrative costs associated with the application review and permitting of the new sulfur-in-fuel limits for process sources, incinerators, and the new waste oil sulfur content limit. No additional monitoring, recordkeeping, or reporting requirements are being proposed under this rulemaking. Therefore, no additional costs will be incurred by the regulating agency based on these factors.

LOCAL GOVERNMENT MANDATES

This is not a mandate on local governments. Local governments have no additional compliance obligations as compared to other subject entities. Also, no additional monitoring, recordkeeping, reporting, or other requirements will be imposed on local governments under this rulemaking.

PAPERWORK

The proposed changes to Subpart 225-1 will create no additional paperwork for facilities currently subject to the requirements of this rule. The facilities that will become subject to this rule will be required to maintain fuel receipts.

DUPLICATION

The proposed revisions to Subpart 225-1 do not duplicate, overlap, or conflict with any other State or federal requirements.

ALTERNATIVES

The Department evaluated the following alternatives:

(1) Take no action: This alternative could prevent NYS from complying with its obligations under the CAA. If the Department does not implement this regulation, it would not be able to meet its obligations to maintain attainment of the PM-2.5 NAAQS in NYS. Also, without the promulgation of Subpart 225-1, the NYS would not be reducing its regional haze impacts in the northeast. The reduction in sulfur-in-fuel waste oil limitation and inclusion of process sources and incinerators will directly result in reductions of SO_2, PM-10, and PM-2.5. Reductions of these air contaminates will aid NYS in meeting both its attainment goals for PM-2.5 and reduce the State's regional haze impact. This alternative would prevent the correction of any existing typographical errors.

(2) Partial implementation: This alternative would allow process and incineration sources and or waste oil firing sources to purchase higher sulfur content fuels or waste oils from out-of-state retailers. In either case, this alternative could prevent NYS from complying with its obligations under the CAA and prevent reductions of SO_2, PM-10, and PM-2.5 emissions.

FEDERAL STANDARDS

The proposed revisions to Subpart 225-1 do not exceed any minimum federal standards. The proposed reductions will lower the standards to the point where they would be equivalent to the sulfur-in-fuel standards of both 40 CFR 60 New Source Performance Standards and 40 CFR 63 National Emission Standards for Hazardous Air Pollutants.

COMPLIANCE SCHEDULE

The rule takes effect 30 days after filing notice of adoption with the New York State Department of State. Compliance with the proposed waste oil sulfur content limit will be required after July 1, 2023.

6 NYCRR Subpart 225-1, Fuel Composition and Use - Sulfur Limitations
Job Impact Statement

NATURE OF IMPACT

The revisions to Subpart 225-1 entail the inclusion of process sources and incinerators as stationary emission sources to which these revisions apply in New York State (NYS). These revisions will also include the lowering of the sulfur-in-fuel limit for waste oil, and the correction of typographical errors. These proposed changes to Subpart 225-1 are not anticipated to have an adverse impact on employment opportunities in the State.

CATEGORIES AND NUMBERS OF JOBS OR EMPLOYMENT OPPORTUNITIES AFFECTED

The promulgation of Subpart 225-1 is not anticipated to have any effects on the number of current jobs or future employment opportunities throughout NYS.

The reductions in visibility-impairing pollutants resulting from the implementation of Subpart 225-1 could result in a positive impact on the tourism industry, particularly for the Adirondack and Catskill Parks. Aside from the mitigation of haze in these areas and across NYS, improvements in acid deposition will be seen, keeping trees and waterways in good condition, thus allowing state parks to remain healthy and attractive places to visit. Increased tourism could create additional job opportunities throughout NYS.

REGIONS OF ADVERSE IMPACT

The proposed Subpart 225-1 is a statewide regulation. This regulation is not expected to have an adverse impact on jobs or employment opportunities in NYS. It does not impact any region or area of the state disproportionately in terms of jobs or employment opportunities.

MINIMIZING ADVERSE IMPACT

The Department does not expect any adverse impacts on jobs in NYS based on the proposed changes to Subpart 225-1. Subpart 225-1 is a statewide regulation. Its requirements are the same for all facilities and will not impact job opportunities in NYS.

SELF-EMPLOYMENT OPPORTUNITIES

There are no anticipated adverse impacts towards self-employment opportunities associated with the proposed Subpart 225-1 regulation.

INITIAL REVIEW

The initial review of this rule shall occur within the third year after this rule is adopted.

6 NYCRR Subpart 225-1, Fuel Composition and Use - Sulfur Limitations
Revised Rural Area Flexibility Analysis

TYPES AND ESTIMATED NUMBERS OF RURAL AREAS AFFECTED

The proposed rule (6 NYCRR Subpart 225-1) is not expected to have a substantial adverse impact on rural areas in New York State (NYS). The proposed rulemaking will apply statewide and thus all stationary sources that fire oil in NYS will be equally affected.

Rural areas are defined as rural counties in NYS that have populations of less than 200,000 people, towns in non-rural counties where the population densities are less than 150 people per square mile, and villages within those towns.

REPORTING, RECORDKEEPING, AND OTHER COMPLIANCE REQUIREMENTS

The proposed rule will entail the inclusion of process sources and incinerators as stationary emission sources to which these revisions apply in NYS and lower sulfur-in-fuel limits for waste oil. Minimal changes will be made in the monitoring, recordkeeping, or reporting requirements in the current version of Subpart 225-1. The revisions will include the allowance of vendor fuel receipts as an acceptable monitoring practice for sources not required to monitor with a continuous emissions monitor. Applicable sources will be required to keep the vendor receipts and make them available for Department inspection upon request. Therefore, minimal new compliance requirements will be incurred by stationary sources subject to the provisions of the proposed rule.

COSTS

Stationary sources subject to the Subpart 225-1 provisions are not expected to incur any increases in operating costs associated with this proposed regulation.

MINIMIZING ADVERSE IMPACT

The Department does not expect any adverse impacts on rural areas. There will be positive environmental impacts from the regulation in rural areas. Rural areas should witness improved visibility with an associated decrease in airborne particulate matter and acid deposition.

Subpart 225-1 is a statewide regulation. Its requirements are the same for all facilities, and rural areas are impacted no differently than other areas in the state.

RURAL AREA PARTICIPATION

During the drafting of Subpart 225-1, the Department held a stakeholder webinar on January 29th, 2019. The webinar was held to give representatives from end users, which include rural-area stakeholders as well as industry, an opportunity to meet with Department staff and discuss various issues during the rulemaking process. During the webinar, the Department fielded questions and comments from the stakeholders regarding the proposed changes to the regulation.

INITIAL REVIEW

The initial review of this rule shall occur within the third year after this rule is adopted.

6 NYCRR Subpart 225-1, Fuel Composition and Use - Sulfur Limitations
Revised Regulatory Flexibility Analysis for Small Businesses and Local Governments

EFFECT OF RULE ON SMALL BUSINESSES AND LOCAL GOVERMENTS

The Department proposes to revise Subpart 225-1. The proposed rulemaking will apply statewide. Small businesses are those that are independently owned, located within New York State (NYS), and that employ 100 or fewer persons. The proposed changes to the subpart 225-1 requirements flow from the State's obligations under the federal Clean Air Act and State Laws. The proposed revisions do not constitute a mandate on local governments. The Subpart 225-1 requirements apply equally to every stationary source that fires oil in NYS. The proposed changes to Subpart 225-1 will not affect small businesses or local governments differently from any other source subject to this rule.

COMPLIANCE REQUIREMENTS

The proposed rule will entail the inclusion of process sources and incinerators as stationary emission sources to which these revisions will apply in NYS and lower sulfur-in-fuel limits for waste oil. Minimal changes will be made in the monitoring, recordkeeping, or reporting requirements in the current version of Subpart 225-1. The revisions will include the allowance of vendor fuel receipts as an acceptable monitoring practice for sources not required to monitor with a continuous emissions monitor. Applicable sources will be required to keep the vendor receipts and make them available for Department inspection upon request. Therefore, minimal new compliance requirements will be incurred by stationary sources subject to the provisions of the proposed rule.

PROFESSIONAL SERVICES

The proposed rule will now specifically include process sources and incinerators as stationary emission sources to which these revisions apply in NYS and lower sulfur-in-fuel limits for distillate oil, residual oil, and waste oil. Facilities subject to this rule are simply required to purchase compliant fuels and keep the purchase receipts. Therefore, the Department does not expect small businesses or local governments will need to hire additional professional services to comply with the provisions of the proposed rule.

COSTS

Stationary sources subject to the Subpart 225-1 provisions are not expected to incur any significant increases in operating costs associated with this proposed regulation.

Local governments are not expected to incur any increases in operating costs associated with this proposed regulation.

MINIMIZING ADVERSE IMPACTS

The Department does not expect any adverse impacts on small businesses and local governments throughout NYS. Subpart 225-1 is a statewide regulation. Its requirements are the

same for all facilities. The Department does not anticipate small businesses or local governments to be impacted differently than other sources subject to the proposed changes to Subpart 225-1.

SMALL BUSINESS AND LOCAL GOVERNMENT PARTICIPATION

During the drafting of Subpart 225-1, the Department held a stakeholder webinar on January 29th, 2019. The webinar was held to give representatives from the end users, which included the small business and local government stakeholders, an opportunity to meet with Department staff and discuss various issues during the rulemaking process. During the webinar, the Department fielded questions and comments from the stakeholders regarding the proposed changes to the regulation.

ECONOMIC AND TECHNOLOGICAL FEASIBILITY

The Department collected data from several sources that handle or fire waste oil throughout NYS. The data was based on several million gallons of waste oil. The Department determined that the sulfur content of waste oil has been steadily declining from 2016 through 2017. This trend is based upon the growing use of synthetic motors oils in vehicles. Synthetic motor oils are made from natural gas and contain very minimal levels of sulfur. The synthetic motor oils created from natural gas also have a nearly zero sulfur content. Thus, the overall mixture of the synthetic motor oil and traditional motor oil in the waste oil stream is consistently at or below the proposed waste oil sulfur content limitation of 0.25 percent by weight and has been deemed a technically feasible limit. Finally, the Department does not anticipate any significant economic impacts associated with these proposed changes.

CURE PERIOD OR AMELIORATIVE ACTION

The Department is not including a cure period in this rulemaking. The purpose of this regulation is to provide timely emissions reductions, delaying enforcement of the regulation adversely affects such emissions reductions.

INITIAL REVIEW

The initial review of this rule shall occur within the third year after this rule is adopted.

Assessment of Public Comments Summary
Subpart 225-1 Fuel Composition and Use – Sulfur Limitations
Comments received from February 5, 2020 through 5:00 P.M. May 15, 2020

Five Commenters commented on the proposed revisions to 6 NYCRR Subpart 225-1 (Subpart 225-1). This document summarizes those comments and the Department's responses.

General Comments:

One Commenter suggested that some smaller facilities may not have excess capacity or inventory available to blend higher sulfur content oil with lower sulfur content oil to meet the new 0.25% sulfur standard. The Department's response acknowledged that the proposed regulation allows for the blending of waste oil as a compliance option while also noting that this is not the only option available to meet the standard.

Multiple Commenters encouraged the Department to conduct a broader survey to determine if a 0.25% limit is achievable and commercially viable. The Department responded that it believes the survey completed between 2016 and 2017 provided an adequate sample size of waste oil collected to set the proposed waste oil sulfur content limit and that additional data collection is not necessary.

Some Commenters also advocated for allowing local authorities to regulate and permit waste oil. The Department responded that combustion facilities in New York State are regulated and permitted by the Department, pursuant to the State's Environmental Conservation Law. While local authorities may require additional permits, the New York City Department of Environment Protection (NYCDEP) is currently the only local air permitting agency in New York State that issues air permits (the NYCDEP has banned the burning of waste oil throughout the City). All facilities that own or employ non-exempt air emission source(s) must submit an air permit application to the New York State Department of Environmental Conservation for approval in the form of an issued air permit.

Rule Applicability:

Some Commenters sought clarification about which fuels are being regulated and whether this regulation applies to incinerators. The Department confirmed that the proposed regulation applies to the oil fired at waste-to-energy plants but not the solid waste that these facilities incinerate. The Department also reiterated that the proposed regulation does not regulate the sulfur content of process materials or waste materials fired in process sources or incinerators.

Cost vs. Environmental Benefit:

Multiple Commenters suggested that the proposed rule change will potentially impose significant costs on facilities with little environmental benefit. One of these Commenters argued that reducing emissions of particulate matter and sulfur dioxide was not necessary because New York State is already in attainment for these pollutants. The Commenter also stated stricter limits on burning waste oil will be counterproductive and will actually result in an increase in overall emissions. The Department's response noted that there are additional compliance options available in the rule that could reduce the potential for significant cost increases. The Department also noted that while New

York State is currently in attainment with the National Ambient Air Quality Standards for PM-2.5, PM-10, and sulfur dioxide, these standards must continue to be maintained. Reducing the maximum sulfur content will help ensure continued attainment and will have continuing environmental benefits.

Additional Commenters stated that while the sulfur content of waste oil has and continues to decrease, used oil processors continue to receive batches with significantly higher sulfur content. The Commenters suggested alternative compliance limits. The Department's response acknowledged that some sources still generate waste oil with a higher sulfur content than the proposed waste oil limit. However, as newer sources required to use synthetic oils, which contain minimal or no sulfur content, either replace older sources or simply enter service, the percentage of these sources that remain in operation will decrease. Thus, the sulfur content of waste oil generated will continue to decrease. Waste oil with a sulfur content higher than the proposed limit can still be burned in certain sources throughout the State. This is allowed if the source uses the equivalent emission rate option under Section 225-1.4, which includes blending or sulfur dioxide control equipment.

Another Commenter stated that the proposed changes will hit small used oil processors hard. To successfully manage oil under the new stricter sulfur standard, the Commenter maintained that compliance options will all significantly increase the company's costs as well as the costs for the generators of the oil. The Commenter also stated that additional time to comply with the regulation would mitigate some of the costs. The Department's response acknowledged that the Commenter identified acceptable compliance options and also noted that the proposed rule does not require the installation of new equipment, i.e., additional tank capacity, which may be necessary to blend higher sulfur waste oil to meet the required sulfur content. The Department acknowledged that there may be some costs associated with various compliance options, but any such costs would be dependent upon the business decisions made by the Commenter. Finally, the Department agreed that additional time to comply is warranted and has extended the compliance period of the proposed regulation (see 'Transition Period' below).

Equivalent Sulfur Dioxide Emission Rate:

A Commenter suggested that fuel mixtures or equivalent emission rate variances should be expanded to include process sources. The Department's response noted that the current Subpart 225-1 and the proposed Subpart 225-1 both allow process sources to use equivalent emission rates as a compliance option.

Other Commenters stated that a statewide level of 0.25% may not allow facilities that employ pollution control technologies to continue to purchase and fire waste oil. The Department's response noted that there are multiple compliance options available in the regulation, including the use of an equivalent sulfur dioxide emission rate emission controls.

Monitoring Requirements:

The Department received a comment stating that process sources should not be required to install CEMs to monitor sulfur dioxide emissions. The Department's response clarified that the intent of the regulation is not to require process sources to install CEMS to monitor sulfur dioxide emissions. This

requirement has been revised in the express terms to require stationary combustion installations and incinerators greater than 250 million British thermal units heat input install CEMS.

Transition Period:

The Department received several comments requesting a transition period to comply with the proposed requirements of the revised regulation. Based on these comments, the Department has set a compliance date of July 1, 2023.

The Department also received comments regarding the impact of COVID-19 on the timeline for the promulgation of this proposed regulation. The Department's initial timeline for implementing the proposed regulation, as stated in the supporting documents, was the Spring of 2020. Due to the impacts of the COVID-19 pandemic, the public comment period for this regulation was extended and the proposed revisions to the regulation are now expected to be adopted by the end of 2020 or early in 2021.

Assessment of Public Comments
Subpart 225-1, Fuel Composition and Use – Sulfur Limitations

General:

Comment 1: Used oil processors are potentially allowed to blend higher sulfur content with lower sulfur content oil in order to meet the new 0.25% sulfur standard. However, this option assumes that facilities have excess tank capacity and inventory to allow blending. Such excess capacity/inventory is not necessarily available, particularly at smaller facilities. (Commenter 2)

Response to Comment 1: The Commenter is correct that the New York State Department of Environmental Conservation (Department) allows for the blending of waste oil as a compliance option to meet the proposed sulfur content limitation and notes that this is not the only option available to meet the standard.

Comment 2: The Department based the lowering of the sulfur-in-fuel limit on data collected from several sources (several million gallons of waste oil that were tested for sulfur content) between 2016 and 2017, and that the waste oil sulfur content averaged at or below 0.25 percent by weight. The Commenter states that it represents over 30 member companies that provide used oil collection and/or recycling services and/or sell waste oil in New York. Therefore, the Commenter encourages a broader survey to determine if a 0.25% limit is achievable and commercially viable. (Commenters 4 & 5)

Response to Comment 2: The Department believes that the survey conducted provided an adequate sample size of waste oil collected to set the proposed waste oil sulfur content limit. The Department also notes that there are alternative compliance options for both retailers and end users to comply with the requirements of the proposed regulation. These options include blending of the waste oil and the use of an equivalent emission rate.

Comment 3: Air permits for combustion facilities are generally done at the local level where they are able to review the specific combustion and pollution control technologies proposed or employed at a location. The Commenter suggests that the Department consider a higher limit, therefore allowing local jurisdictions to implement limits customized to their locality and the technology available at the combustion facility. (Commenters 4 & 5)

Response to Comment 3: All combustion facilities subject to air permitting requirements throughout New York State are regulated and permitted by the Department pursuant to the State's Environmental Conservation Law. While local authorities may require permits as well, the New York City Department of Environment Protection (NYCDEP) is currently the only local air permitting agency in New York State that issues air permits (the NYCDEP has banned the burning of waste oil throughout the City). All facilities that own or employ non-exempt air emission source(s) must submit an air permit application to the New York State Department of Environmental Conservation for approval in the form of an issued air permit.

Rule Applicability:

Comment 4: The revisions to Subpart 225-1 now include incinerators, which is assumed to apply to energy-from-waste plants that combust oil as an auxiliary fuel. (Commenter 1)

Response to Comment 4: The proposed regulation applies to the oil fired at waste-to-energy plants and not the solid waste that these facilities incinerate.

Comment 5: The rule must clarify that sulfur restrictions apply to traditional fuels and not process materials. The Commenter requests that the Department clarify the definitions in Section 225-1.2 in such a way to make it clear that process materials containing sulfur (e.g., black liquor and non-condensable gases from the pulping process) are not covered by this regulation. (Commenter 3)

Response to Comment 5: The proposed regulation is intended to limit the sulfur content of fossil fuels and fuels derived from fossil fuels. It does not regulate the sulfur content of process materials or waste materials fired in process sources or incinerators.

Cost vs. Environmental Benefit:

Comment 6: The Commenter states that the proposed rule change will potentially impose significant cost to its facility with little environmental benefit. Satisfying the 0.5% sulfur content restriction is estimated to potentially increase operating costs by two million dollars. The sulfur dioxide emission reduction is estimated to be about 33 tons at an estimated cost of $60,600 per ton removed. This estimate is based on replacing all #6 fuel oil consumed at the facility with 0.5% sulfur content and converting the existing #6 fuel oil storage tank to handle the lower sulfur oil. An alternative option would be to install a second, new fuel oil storage tank and fuel delivery system to serve the two process sources affected by the proposed revisions at a cost that could exceed one million dollars. (Commenter 3)

Response to Comment 6: The Commenter's existing permit requires that its combustion source employ a sulfur dioxide control device and continuous emission monitor (CEM). Thus, the facility already meets an equivalent emission rate for its combustion source under existing Section 225-1.4. The facility will only need to fire 0.5% sulfur content oil in its process sources, which as stated by the Commenter, is approximately 25 percent of the total oil fired at the facility. Therefore, the facility would not need to replace all of the #6 fuel oil they consume, thereby reducing cost concerns. As stated in the comment, the facility may add a new tank and fuel delivery system for their process sources that fire #6 fuel oil, to accept compliant fuel. However, this is still not the facility's only option. The facility may also alleviate cost concerns by using an equivalent emission rate for its process sources, as authorized in Section 225-1.4, Variances, to demonstrate compliance. Compliance with the equivalent emission rate may be achieved either with or without installing a sulfur dioxide control device, depending on the facility's technical determination.

Comment 7: From an environmental perspective, the proposed decrease in the allowable sulfur content will have comparatively limited benefits. According to the Department, the changes are directed at reducing emissions of particulate matter (PM-2.5 and PM-10), and sulfur dioxide. However, it is the Commenter's understanding that New York State is currently in attainment for these pollutants. The decision to impose the stricter sulfur limits on burning waste oil may simply prevent facilities from beneficially burning such oil for energy recovery. The rejected shipments will still need

to be managed-potentially by incineration. So, regardless of whether the waste oil is burned for energy recovery or incinerated as waste, some portion of the sulfur dioxide will likely enter the atmosphere. Facilities that would otherwise have burned the on-spec used oil for energy recovery could potentially substitute virgin oil instead, resulting in additional emissions. (Commenter 2)

Response to Comment 7: New York State is currently in attainment with the National Ambient Air Quality Standards for PM-2.5, PM-10, and sulfur dioxide. However, the Department must maintain attainment and continues to look for ways to further reduce emissions. The reduction in maximum sulfur content limits is one of those ways and will have continuing environmental benefits. There are several options that waste oil collectors, retailers, and end users may employ to meet the requirements of this regulation. See Response to Comment 2, above.

Comment 8: The Commenter acknowledges the environmental benefits of reducing the sulfur content of used oil burned for energy recovery, however, it does not believe that the benefits outweigh the harms caused by limiting the options for managing used oil containing between 0.25% and 0.75% sulfur. Accordingly, the Commenter strongly urges the Department to increase the maximum sulfur content limit to 0.5%. This level would allow for the pickup of occasional loads of oil that exceed the 0.25% level, while still achieving reductions in sulfur dioxide emissions, and at the same time not affect the ability of small used oil processors to function cost-effectively. (Commenter 2)

Comment 9: The Commenter states that the Department is correct that the sulfur content of oil has generally decreased over time. However, used oil processors receive batches with significantly higher sulfur content (rarely above 0.5%). The Commenter sampled and tested the sulfur content of oil collected from its higher volume customers and identified at least one major customer that frequently exceeds the proposed 0.25% sulfur content limit. The higher sulfur content of this waste oil is based on the design of the engines that use this oil. The requirement for these engines is a virgin oil sulfur content between 0.325% and 0.463%. Therefore, the sulfur content of the waste oil generated by these sources will not necessarily decrease over time. (Commenter 2)

Comment 10: The Commenter states a single load of high sulfur oil can result in an entire tank of oil (40,000 gallons) exceeding the proposed 0.25% limit. Under the proposed rulemaking, this oil violates the sulfur content limits in Subpart 225-1 and would be barred from being burned for energy recovery under Subpart 225-1. Noncompliant oil would potentially be required to be disposed of as waste rather than being burned as fuel. In the alternative, the oil could be shipped to a re-refiner (i.e., a competitor) for further processing prior to being burned as on-spec oil. The Commenter states that either alternative would significantly increase the costs of managing the waste oil. (Commenter 2)

Response to Comments 8 through 10: The Department acknowledges that some sources still generate waste oil with a higher sulfur content than the proposed waste oil limit. However, as newer sources required to use synthetic oils, which contain minimal or no sulfur content, either replace older sources or simply enter service, the percentage of these sources still operating will decrease. Thus, the sulfur content of waste oil generated will continue to decrease. Waste oil with a sulfur content higher than the proposed limit can still be burned in certain sources throughout the State. This can be allowed if the source uses the equivalent emission rate option under Section 225-1.4 through blending or has sulfur dioxide control equipment.

Comment 11: The Commenter states that, from a business perspective, the proposed changes to Subpart 225-1 will hit small used oil processors hard. To successfully manage oil under the new stricter sulfur standard, the Commenter states that it would have to do one of following three things:

(1) increase its tank capacity (to allow for blending),
(2) ship noncompliant tank loads for disposal as waste, or
(3) send the noncompliant loads to a competitor for re-refining.

Each of these three options will significantly increase the company's costs as well as the costs for the generators of the oil. The Commenter states that from a business generation perspective, if waste oil exceeding 0.25% sulfur content is no longer allowed, the company will be effectively barred from bidding on contracts to accept oil that may exceed the limit, since it cannot be assured that it can cost-effectively manage the oil it receives. (Commenter 2)

Response to Comment 11: The Department agrees that the options listed above are acceptable for the use or processing of waste oil. The Commenter points out that one of its customers frequently exceeds the 0.25% sulfur content. The proposed rule does not require the installation of new equipment, i.e., additional tank capacity, which may be necessary to blend higher sulfur waste oil to meet the required sulfur content. While the Department acknowledges that there may be costs associated with these compliance options, any such costs would be dependent upon the business decisions made by the Commenter.

The Department notes that the Commenter was included in a survey during the initial stages of this rulemaking and provided records to the Department indicating that waste oil sulfur content, at that time, averaged at or below 0.25% by weight. The Commenter states that based on the gradual downward trend of the sulfur content in waste oil, an extension of the compliance period would allow time to adapt its operations to meet the lower sulfur limits. The Department agrees and will extend the compliance period of the proposed regulation (please see the response to Comments 15 and 16 below).

Equivalent Sulfur Dioxide Emission Rate:

Comment 12: The Commenter states that the "fuel mixtures or equivalent emission rate variances" in subdivision 225-1.4(a) should be expanded to include process sources. This allows sources firing multiple fuels of various sulfur content and those with existing sulfur dioxide controls to maintain fuel flexibility while meeting the sulfur dioxide emission targets established by this regulation. (Commenter 3)

Response to Comment 12: Both the current Subpart 225-1 and the proposed Subpart 225-1 allow process sources to use equivalent emission rates as a compliance option. See 225-1.4(a).

Comment 13: There are various combustion technologies and pollution control technologies currently in place throughout New York State and the rest of the country with the ability to limit air pollution. There are likely combustion facilities in New York State that could utilize waste oil at a level above 0.25%, which employ pollution control technologies to minimize the environmental impact and remain within current regulations. If a statewide level of 0.25% is approved, it may not allow facilities that employ pollution control technologies to continue to purchase and fire waste oil. This may possibly

create an adverse financial impact to both the used oil recycler and the end user of the product. Commenter (4 & 5)

Response to Comment 13: Section 225-1.4 allows a facility to fire fuel (including waste oil) with a higher sulfur content by demonstrating compliance with an equivalent sulfur dioxide emission rate. Emission sources with installed sulfur dioxide emission controls are also eligible to utilize an equivalent emission rate. Therefore, the Department believes that the regulation as written addresses the Commenter's concerns.

Monitoring Requirements:

Comment 14: The Commenter states that Section 225-1.5(a) should be changed to clearly state that the continuous monitoring provisions apply only to stationary combustion installations with a total heat input greater than 250 million Btu per hour that are equipped with approved sulfur dioxide control equipment or that are subject to a sulfur dioxide equivalent emissions rate for a fuel mixture pursuant to Subdivision 225-l.4(a). The requirement should not apply to process sources or incinerators of any size. (Commenter 3)

Response to Comment 14: The intent of the regulation was not to require process sources to install CEMs to monitor sulfur dioxide emissions. This requirement will be revised in the express terms to require stationary combustion installations and incinerators greater than 250 million British thermal units heat input to install CEMs.

Transition Period:

Comment 15: The Commenter states that an adequate transition period must be provided to allow newly affected sources to make changes necessary to comply. The Commenter is concerned about the lack of compliance schedule in the proposed rule revisions. If a new oil storage tank is needed, a sufficient amount of time will be necessary to engineer, permit and construct a tank, secondary containment, and delivery system. The compliance schedule must take into account that outdoor construction is limited during the winter months. (Commenter 3)

Comment 16: The Commenters urge the agency to include a grace period of at least three years from the effective date of the regulations to implement the new standard. The Commenters suggest keeping the sulfur content limit at 0.75% (or be lowered to 0.5%) for three years from the effective date of the regulations before decreasing to 0.25%. (Commenters 2, 4, & 5)

Response to Comments 15 and 16: Based on the comments received, the Department will extend the compliance date for process sources, incinerators, waste oil distributors, and emissions sources firing waste oil. As a result, owners and/or operators of process sources, incinerators, waste oil distributors, and emissions sources firing waste oil will be required to meet the presumptive sulfur-in-fuel limits in Section 225-1.2 by July 1, 2023.

Comment 17: The Commenter states that it is unclear if the impacts of COVID-19 will impact that timeline of the promulgation of this proposed regulation. (Commenters 4 & 5)

Response to Comment 17: As the Commenter stated, the timeline for implementing the proposed regulation in the supporting documents is the spring of 2020. Due to the impacts of the COVID-19

pandemic, the public comment period for this regulation was extended and the proposed revisions to the regulation are expected to be finalized by the end of 2020 or early in 2021.

Commenter List:

1. Covanta
2. Sheldon Oil Services, Inc
3. International Paper Ticonderoga Mill
4. NORA
5. NORA