**DEPARTMENT OF energy and ENVIRONMENT**

**NOTICE OF PROPOSED RULEMAKING**

**Greenhouse Gas (GHG) Intensity Limits for Fuels Used in Fuel-Burning Equipment**

The Director of the Department of Energy and Environment (“DOEE” or “Department”), pursuant to the authority set forth in Sections 5 and 6 of the District of Columbia Air Pollution Control Act of 1984 (the “Act”), effective March 15, 1985 (D.C. Law 5-165; D.C. Official Code §§ 8-101.05 & 8-101.06 (2013 Repl. & 2018 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) (2013 Repl. & 2018 Supp.)); and Mayor’s Order 2006-61, dated June 14, 2006, hereby gives notice of the intent to amend Chapter 8 (Air Quality — Asbestos, Sulfur, Nitrogen Oxides and Lead), to Title 20 (Environment) of the District of Columbia Municipal Regulations (DCMR), in not less than thirty (30) days from the date of publication of this notice in the *D.C. Register.*

The Department is empowered to promote the safety, health and welfare of the public, protect the State’s natural environment, and also help ensure a safe, dependable and economical supply of energy to the people of the District. There is strong scientific evidence that the earth’s climate is changing and that greenhouse gases (“GHGs”) from fossil fuel combustion and other human activities are the major contributor to this change. Furthermore, the U.S. Environmental Protection Agency has found through formal rulemaking that GHGs “may reasonably be anticipated both to endanger public health and to endanger public welfare” and must be regulated under sections of the Clean Air Act of 1963, approved December 17, 1963 (77 Stat. 392; 42 U.S.C. § 7401 *et seq.*). Numerous national and environmental panels have identified the dangers of excessive carbon emissions.[[1]](#footnote-1) Climate change represents an enormous environmental challenge for the District because, unabated, it will have serious adverse impacts on the District’s natural resources, public health and infrastructure.

The Department is proposing amendments to Chapter 8 of the air quality regulations in order to conform to the goals of the Sustainable DC and DC Clean Energy Plans, and to protect air quality in the District. The Act provided the Mayor with general authority to regulate air quality in the District and has been subsequently updated to clarify the Mayor’s regulatory and enforcement authorities. This rulemaking will further align the District’s regulations with its climate goals by preventing the operation of high-carbon sources of heat and power, such as coal-fired fuel burning equipment, that do not utilize carbon capture and sequestration (CCS) or some other advanced CO2 emission reduction technology, consistent with the District’s plan to decarbonize the District’s energy system.

In August 2018, DOEE published its updated Clean Energy DC Plan, the District of Columbia’s climate and energy plan[[2]](#footnote-2) that it formulated at the direction of the DC Council and the Mayor. The Clean Energy DC Plan explains how the District will use forward-looking energy policies to achieve its greenhouse gas (GHG) emissions targets for 2032, while also encouraging innovation, efficiency, and resiliency to address GHG emissions. The Clean Energy DC Plan is the District’s roadmap to reduce greenhouse gas (GHG) emissions by 50% below 2006 levels by 2032. The Clean Energy DC Plan provides additional guidance on how the District can modify its energy usage and emissions, as directed by the District's Sustainable DC Plan, the District’s planning effort to make the District the most sustainable city in the nation.

Collectively, taking the actions established in these plans are major steps in demonstrating the District’s commitment and contribution to hold global warming to two degrees Celsius (2°C) and avoid the worst effects of global climate change. To reach its CO2 emission reduction goal, the District must ensure that facilities burning coal are repowering to a cleaner fuel or closed as soon as practicable. Climate change represents one of the most pressing environmental challenges for the District, the nation, and the world, and reducing GHG emissions, including CO2, is a means to reduce the pace of climate change. The proposed revisions to Chapter 8 serve to further CO2 emissions reductions in order to mitigate the District’s contribution to climate change.

The Clean Energy DC Plan lists 57 actions that the District can take to achieve it sustainable energy goals. In particular, the Clean Energy DC plan found that, “Energy, through extraction and consumption of fossil fuels, is the leading global source of GHG emissions. … [P]hasing out fossil fuels from the District’s energy supply (or “decarbonizing” the supply) will be essential to achieving its climate change goals.”[[3]](#footnote-3) The Clean Energy DC Plan calls for laws that set a maximum GHG intensity for electricity supplied to the District.

The District is here proposing to adopt rules to compliment this goal by utilizing its existing regulatory authority to control GHG emissions from facilities within the District. The rule proposes to establish a maximum carbon intensity threshold for fuel burned within the District, either for electricity or heating. These limits will be subsequently incorporated into air quality permits, thereby reducing GHG emissions. This rule proposes to establish carbon dioxide (CO2) emissions limits for all facilities in the District of 180 lbs/mmBTU of input.

**Chapter 8,** **AIR QUALITY — ASBESTOS, SULFUR, NITROGEN OXIDES AND LEAD, of Title 20 DCMR, Environment, is amended to read as follows:**

**The title of the chapter is amended to read as follows:**

“Chapter 8. Air Quality - Asbestos, Sulfur, Nitrogen Oxides, Lead, and Carbon Dioxide”

**A new Section 807 is added to read as follows:**

**807 FUEL CARBON INTENSITY STANDARDS FOR FACILITIES OPERATING WITHIN THE DISTRICT**

807.1 *Applicability.* The requirements of this section shall apply to all fuel burning equipment subject to the requirements of 20 DCMR § 200.

807.2 *Emissions limits.* The following limitation shall apply to each individual fuel type or component fuel before it is blended or combined with any other fuel. The requirements of this part cannot be met by combining a fuel that exceeds the emission limits of this part with a fuel that does meet the threshold in order to lower the overall emission rate. Beginning on December 31, 2019, any new or existing fuel burning equipment is required to meet the following:

1. An emission rate of 180 pounds of CO2 per million Btu of heat input, daily average basis, shall not be exceeded for each fossil fuel combusted; and

(b) Each component fuel shall meet the threshold set forth in paragraph (a) and may not be blended with another lower CO2 emitting fuel to achieve compliance with this part.

807.3 *Deemed Compliance.* Fuel oil meeting the requirements of § 801, biomass, digester gas, kerosene, propane, and natural gas are deemed compliant with this part without further compliance determination, reporting, or certification required.

807.4 *Compliance Determination.* The owner or operator of each emission source subject to this section, and using any fuel not deemed compliant pursuant to
§ 807.3, shall determine compliance with the requirements of § 807.2 by the following method:

(a) Determine the gross calorific value (heat content) of the fuel as follows:

(1) For coal, sample and test in accordance with ASTM Method D5865 or other method approved in advance by the Department pursuant to § 502.3;

(2) For other fuels, sample and test in accordance with a test method approved in advance by the Department pursuant to § 502.3; and

(3) Perform such testing at least once per calendar year to represent the fuel used since the last test, except as specified in
§ 807.4(a)(4); or

(4) In lieu of the testing specified in § 807.4(a)(1-3), fuel specifications obtained from the fuel supplier, with an updated version obtained annually from said fuel supplier, and citing a test method approved by the Department, may be used; and

(b) Determine the CO2 mass emissions from the emission source by direct measurement or fuel analysis as follows:

(1) To determine CO2 emissions by direct measurement, install, maintain, and operate CEMS to monitor CO2 or O2 concentration in combination with a continuous parametric monitoring system (CPMS) for stack gas flow rate in accordance with the relevant provisions of 40 CFR part 75 and use the procedures in 40 CFR part 75, Appendix F to determine CO2 mass emissions; or

(2) To determine CO2 emissions by fuel analysis, follow the procedures in 40 CFR part 75, Appendix G;

(c) If fuel blending is used, only the fuel analysis method specified in
§ 807.4(b)(2) shall be an acceptable method for determining CO2 mass emissions for use in determining compliance with this section in order to document compliance for each component fuel as required by § 807.2(b);

(d) Monitor and record the amount of fuel used each day; and

(e) Using the information obtained by the procedures in § 804.7(a) through (d), determine and record the pounds of CO2 per million Btu of heat input, daily average basis, for each fossil fuel combusted each day from each emission unit covered by this section.

807.5 *Reporting and Compliance Certification.* The owner or operator of each emission source subject to this section, and using any fuel not deemed compliant pursuant to § 807.3, shall submit to the Department, within one calendar month following the end of each calendar quarter, a report of the daily average pounds of CO2 per million Btu of heat input emitted from the use of any such fuel during that calendar quarter. The owner or operator shall certify the truth, accuracy, and completeness of each report by the method specified in 20 DCMR § 301.4.

All persons desiring to comment on the proposed rulemaking should file comments in writing not later than thirty (30) days after publication of this notice in the *D.C. Register*. Comments should be clearly marked “Public Comments: Section 897 of the Air Quality Regulations” and filed with DOEE, Air Quality Division, 1200 First Street, N.E., 5th Floor, Washington, DC 20002, Attention: Stephen Ours, or e-mailed to airqualityregulations@dc.gov. Copies of the above documents may be obtained from DOEE at the same address.

1. *See* U.S. Global Change Research Program*, Fourth National Climate Assessment, Chapter 2: Physical Drivers of Climate Change. Key Finding 1*. <https://science2017.globalchange.gov/chapter/2/>. [↑](#footnote-ref-1)
2. Dep’t of Energy & Env’t, *Clean Energy DC Plan*, <https://doee.dc.gov/cleanenergydc>. [↑](#footnote-ref-2)
3. *Id.* at 4. [↑](#footnote-ref-3)