

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

TO: File

THROUGH: Stephen S. Ours
Chief, Permitting Branch

FROM: Wyatt Bohmann
Environmental Protection Specialist

**SUBJECT: UHS East End Sub, LLC
Permit Nos. 7392 and 7393 to Construct and Operate Two Dual Fuel-Fired
(Natural Gas/No. Fuel Oil) Hot Water Boilers at the Cedar Hill Regional
Medical Center, 1200 Pecan Street SE, Washington DC**

DATE: September 3, 2024

BACKGROUND INFORMATION

On July 1, 2024, the Air Quality Division (AQD) of the Department of Energy and Environment (DOEE) received applications to construct and operate two (2) AERCO MFC 8000 8 MMBTU/hr dual fuel-fired (natural gas as primary and No. 2 fuel oil as back-up fuel) boilers located at the Cedar Hill Regional Medical Center, 1200 Pecan Street SE, Washington DC, from UHS East End Sub, LLC. AQD requested additional information and documentation from UHS East End Sub, LLC on July 3, 2024, and subsequently received the requested information on July 31, 2024 and August 1, 2024.

UHS East End Sub, LLC has not requested that any of the materials submitted with these applications be held confidential.

REGULATORY REVIEW

20 DCMR Chapter 2, Section 200: General Permit Requirements

The two boilers are rated at 8 MMBTU/hr heat input (natural gas-fired/No. fuel oil-fired). These units have heat input ratings greater than 5 MMBTU/hr, and therefore require pre-construction permits pursuant to 20 DCMR 200.1 and must maintain permits to operate pursuant to 20 DCMR 200.2. Additionally, pursuant to 200.7, the applicant has requested a limitation on the use of the secondary fuel, No. 2 fuel oil, to periods of gas curtailment, periods of gas supply interruption, startups, and for periodic testing, maintenance, or operator training on liquid fuel not to exceed a combined total of 48 hours during any calendar year. These limits have been requested to avoid applicability of 40 CFR 63, Subpart JJJJJ, as discussed below and have been incorporated into Condition III(c) of the permit.

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

UHS East End Sub, LLC

Permits Nos. 7392 and 7393 to Construct and Operate Two Dual-Fuel Hot Water Boilers

September 3, 2024

Page 2

20 DCMR Chapter 2, Section 209: Permit Requirements For Non-Major Stationary Sources (Minor New Source Review)

20 DCMR 209 applies to any source required to obtain a permit under § 200 to construct a new stationary source, modify an existing stationary source, or install or modify an air pollution control device on a stationary source that results in a collateral emission increase, where the increase in potential emissions is equal to or greater than 5 TPY for VOCs, NO_x, SO₂, PM₁₀, PM_{2.5}, or the aggregate of any hazardous air pollutants (HAPs) listed in § 112(b) of the Clean Air Act.

The units, individually, do not result in an increase in VOCs, NO_x, SO₂, PM₁₀, PM_{2.5}, or HAPS above 5 TPY. As a result, 20 DCMR 209 does not apply to the two boilers.

20 DCMR Chapter 5, Section 500: Source Monitoring and Testing Requirements

Appropriate monitoring and testing requirements have been included in Condition IV of the permits with associated record-keeping and reporting requirements in Condition V of the permits to ensure that compliance can be fully evaluated.

20 DCMR Chapter 6, Section 600: Fuel Burning Particulate Emission

Total suspended particulate (TSP) emissions from each of the boilers shall not exceed 0.11 pounds per MMBTU per 20 DCMR 600.1. This requirement is contained in Condition II(c) of the permit. Periodic testing for compliance may be required pursuant to Condition IV(b). In the absence of such testing, it is assumed that compliance will be maintained by compliance with Conditions III(a) through (c) limiting operations to the use of natural gas or fuel oil and Conditions III(d) through (g) ensuring proper operation and maintenance of the equipment.

It should be noted that this regulation refers to “particulate matter” rather than TSP, however, at the time that the regulation was promulgated, this term was understood to refer to TSP. Since that time, the more general term “particulate matter” is no longer specific enough to clarify what is meant. As a result, the permit document refers to TSP rather than using the specific term used in the regulation.

20 DCMR Chapter 6, Section 606: Visible Emissions

Both boilers are subject to the visible emissions limitations of 20 DCMR 606. Visible emissions shall not be emitted into the outdoor atmosphere from either boiler except that discharges shall be permitted for two (2) minutes during any startup, cleaning, adjustment of combustion or operational controls, or regeneration of emission control equipment, provided that such discharge shall not exceed twenty-seven percent (20%) opacity (unaveraged) when burning exclusively natural gas and (27%) opacity (unaveraged) when burning fuel oil or a combination of fuel oil and natural gas. This requirement is established in Condition II(b) of the permits. Monitoring and testing for compliance is contained in Conditions IV(c) and (d).

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

UHS East End Sub, LLC

Permits Nos. 7392 and 7393 to Construct and Operate Two Dual-Fuel Hot Water Boilers

September 3, 2024

Page 3

Additionally, this regulation establishes certain operational, maintenance, and training requirements which have been incorporated into Conditions III(f) and (g). Record keeping requirements are incorporated into Conditions V(c) and (d).

20 DCMR Chapter 8, Section 801: Sulfur Content of Fuel Oils

Pursuant to 20 DCMR 801.3, no No. 2 commercial fuel oil that contains more than fifteen ten-thousandths percent (0.0015%) by weight of sulfur shall be purchased, sold, offered for sale, stored, transported, or used in the District. This restriction is contained in Condition III(b) of the permits.

20 DCMR Chapter 8, Section 805: Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen (NO_x RACT)

NO_x RACT is not applicable to this facility pursuant to 20 DCMR 805.1(a) because the facility is not a major source of NO_x.

20 DCMR Chapter 9, Section 903: Odorous or Other Nuisance Air Pollutants

“An emission into the atmosphere of odorous or other air pollutants from any source in any quantity and of any characteristic, and duration which is, or is likely to be injurious to the public health or welfare, or which interferes with the reasonable enjoyment of life or property is prohibited [20 DCMR 903.1]” is applicable to all sources. This requirement is contained in Condition II(d) of the permits. The affirmative defense provision of 20 DCMR 903.13(b) has also been incorporated into Condition II(d). The requirements to develop an odor control plan (OCP) do not apply to this facility at this time.

40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (NSPS Subpart Dc)

The units are not subject to this regulation on the basis that both units, which are each rated at 8 MMBTU/hr, are not within the applicability range of 10 MMBTU/hr to 100 MMBTU/hr. As a result, the units are not subject to the requirements of 40 CFR 60 Subpart Dc.

40 CFR 63, Subpart JJJJJ: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources (NESHAP Subpart JJJJJ)

NESHAP subpart JJJJJ for area source ICI Boilers has the potential to be applicable because the boilers are existing boilers, capable of oil firing, located at an area source of hazardous air pollutants per 40 CFR 63.11193. However, the boilers use fuel oil only as back up fuel and have been characterized as “gas-fired boiler[s]” as defined in 40 CFR 63.11237, and are therefore not subject to 40 CFR 63, Subpart JJJJJ in the category of oil-fired boilers (see 40 CFR 63.11200) pursuant to 40 CFR 63.111959(e). On this basis, the requirements of this regulation have not been applied to the equipment, but Condition III(c), adopted pursuant to 20 DCMR 200.7, as discussed above, along with related monitoring and record keeping requirements, has been placed in the permits to ensure that the equipment continues to be operated as “gas-fired boilers”.

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

UHS East End Sub, LLC

Permits Nos. 7392 and 7393 to Construct and Operate Two Dual-Fuel Hot Water Boilers

September 3, 2024

Page 4

RECOMMENDATIONS

Based on AQD's evaluation of the application package, the construction and operation of the equipment as proposed, and the draft permits as written, are consistent with all applicable federal and District air pollution control laws and regulations.

The permit action for the boilers will be published in the DC Register and on DOEE's website on September 6, 2024. Public comments for the permit action will be solicited from September 6, 2024 through October 7, 2024. Additionally, during that time, any person may request a public hearing on this subject. A public hearing will not be held unless requested. If public comments are received, they will be reviewed and addressed before any final action is taken on the permit application package. If no adverse comments are received, I recommend that permit Nos. 7392 and 7393 be issued in accordance with 20 DCMR 200 promptly following the end of the public comment period.

WEB