

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

TO: File

THROUGH: Stephen S. Ours, P.E. *SSO*
Chief, Permitting Branch

FROM: Olivia Achuko *OA*
Environmental Engineer

SUBJECT: **H Street NE Owner LLC
Permit to Construct and Operate Three Identical 6.0 MMBTU per
Hour Natural Gas Fired Boilers at 600 H Street NE**

DATE: July 23, 2018

BACKGROUND INFORMATION

A set of permit applications to construct and operate three (3) identical 6.0 MM Btu per hour natural gas fired boilers at the H Street NE Owner LLC property located at 600 H Street NE, was received by the Air Quality Division (AQD) of the Department of Energy and Environment (DOEE) on May 31, 2018. These applications were received as part of a package that also included a source category permit coverage application for an emergency generator set. This generator set application was previously addressed separately (see file 7048-SC-0093).

The permit actions for the boilers will be published in the DC Register and on DOEE's website on August 3, 2018. Public comments for the permit actions will be solicited through September 4, 2018.

H Street NE Owner LLC has not requested that any of the materials submitted with this application be held confidential.

REGULATORY REVIEW

20 DCMR Chapter 2, Section 200: General Permit Requirements

The boilers are each 6.0 MMBTU/hr rated heat input natural gas fired boilers. Because their rated heat inputs are greater than 5 MMBTU/hr, Chapter 2 permits are required before construction and operation pursuant to 20 DCMR 200.

20 DCMR 204 – Permit Requirements for Major Stationary Sources Located in Non-attainment Areas (Non-attainment New Source Review (NNSR))

This project consists, not only of the construction of three 6.0 MMBTU/hr natural gas

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fired hot water boilers, but also one 750 kW emergency generator set powered by a 890 kW diesel-fired engine (approved under source category permit approval 7048-SC-0093). The potential to emit of all regulated air pollutants are below the relevant NNSR (and PSD) thresholds. The total source NO_x potential to emit was estimated to be 10.72 tons per year which is less than 25 tons per year therefore this project will not result in a “significant” increase in emissions. This regulation is not applicable.

20 DCMR 209 – Permit Requirements for Non-Major Stationary Sources (Minor New Source Review)

Minor New Source Review, which became effective January 1, 2014, is applicable to any source subject to 20 DCMR 200, if such source uses a stationary unit or air pollution control device that, individually, would have the potential to emit equal to or greater than 5 tons per year (tpy) per unit of any criteria pollutant (excluding CO, ozone, and lead) or aggregate of hazardous air pollutants (HAPs). The boilers do not individually have a potential to emit 5 tons per year of NO_x or any other pollutant listed in Section 209.1(b). Therefore the boilers do not trigger a minor source review evaluation pursuant to this regulation.

20 DCMR Chapter 3: Operating Permits and Acid Rain Programs

A source that has the potential to emit more than 25 tons per year of Oxides of Nitrogen (NO_x) is considered a Major Source and is required to obtain a Title V permit. The H Street NE Owner LLC facility is **not** a major source, therefore is not subject to Chapter 3 and will not need an operating permit in accordance with 20 DCMR 300.1.

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 permit to ensure that compliance with the conditions of the permit can be evaluated.

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

Total suspended particulate emission from each of the boilers shall not exceed 0.11 pounds per million BTU. This requirement is contained in Condition II(d) of the permit.

20 DCMR Chapter 6, Section 606: Visible Emissions

The visible emissions limitations of 20 DCMR 606.1 are applicable to all units. Visible emissions shall not be emitted into the outdoor atmosphere from the operation of the these units; provided, that discharges not exceeding forty percent (40%) opacity (unaveraged) shall be permitted for two minutes in any sixty (60) minute period and for an aggregate of twelve (12) minutes in any twenty-four hour (24 hr.) period during start-up, or malfunction of equipment. This requirement is contained in Condition II(b) of the permits. Specific testing requirements related to this regulation are also included in the boiler permits.

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Note that language has been included in the permit notifying the facility that there is an outstanding call for a State Implementation Plan (SIP) revision from EPA that may result in revisions to the applicable regulation. As such, if the regulation is changed, the new regulatory requirements will supersede those expressed in the permit specifically.

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

NOx RACT is not applicable to this facility pursuant to 20 DCMR 805.1(a) because it is not a major source of NOx. This section is not applicable.

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 permit.

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

This regulation is not applicable because the units are below the size applicability threshold of 10 MMBTU/hr heat input.

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

NESHAP subpart JJJJJ for area source ICI Boilers is not applicable because the boilers are permitted to burn only natural gas.

RECOMMENDATIONS

The proposed project and attached permits comply with all applicable federal and District air pollution control laws and regulations.

Public comments for the permit action will be solicited from August 3, 2018 through September 4, 2018. AQD will resolve any comments received before taking final action on the applications. If no comments are received, I recommend that permit Nos. 7211 through 7213 be issued in accordance with 20 DCMR 200.1 and 200.2 promptly following the end of the public comment period.

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