

GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment



Air Quality Division

January 8, 2013

Mr. George S. Hawkins
General Manager
District of Columbia Water and Sewer Authority
5000 Overlook Avenue, SW
Washington, D.C. 20032

RE: Permits to Construct and Operate Natural Gas-fired Steam Boilers

Dear Mr. Hawkins:

Pursuant to sections 200.1 and 200.2 of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), a permit from the Mayor shall be obtained before any person can construct and operate a stationary source in the District of Columbia. The applications of the District of Columbia Water and Sewer Authority (“Permittee”) to construct and operate the listed two (2) Cleaver Brooks natural gas Steam Boilers located in Washington, DC, have been reviewed:

Equipment Location	Address	Equipment Size	Model Number	Permit No.
Central Maintenance Facility- C7-2	5000 Overlook Avenue SW Washington, DC 20032	6.123 MMBTU/hr (150 hp)	CBLE-150-15ST	6422
Central Maintenance Facility-C8-2	5000 Overlook Avenue SW Washington, DC 20032	6.123 MMBTU/hr (150 hp)	CBLE-150-15ST	6423

Based on the submitted plans and specifications as detailed in the applications received on October 14, 2010, the applications are hereby approved, and the construction and operation of the boilers are permitted, subject to the following conditions:

I. General Requirements:

- a. This approval is issued pursuant to the applicable air pollution control requirements of 20 DCMR for the construction and operation of the steam boilers.
- b. This set of permits will expire on January 7, 2018. If continued operation after this date is desired, the owner or operator shall submit applications for renewal by October 7, 2018. [20 DCMR 200.4]



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- c. Construction or operation of equipment under the authority of this set of permits shall be considered acceptance of its terms and conditions.
- d. The Permittee shall allow authorized officials of the District, upon presentation of identification, to:
 - 1. Enter upon the Permittee's premises where a source or emission unit is located, an emissions related activity is conducted, or where records required by this permit are kept;
 - 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;
 - 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - 4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement.
- e. This set of permits shall be kept on the premises and produced upon request.
- f. Failure to comply with the provisions of this permit document may be grounds for suspension or revocation. [20 DCMR 202.2]
- g. Emergency situations shall be handled in accordance with the provisions of 20 DCMR 302.7 (a) through (c).
- h. If not already completed by the date of this permit, within twelve (12) months of issuance of this permit to construct and operate, the Permittee shall submit a complete application to modify the facility's Title V operating permit to include the requirements of this set of permits [20 DCMR 301.1(a)(3)]. This application is due by January 8, 2014.
- i. The Permittee must not operate the two existing 6.28 MMBtu/hr natural gas-fired boilers (C7 and C8) after start-up of the new replacement units (C7-2 and C8-2).

II. Emission Limitations:

- a. Each of the two (2) identical 6.123 million BTU per hour Cleaver Brooks natural gas – fired boilers identified as C7-2 and C8-2, shall not emit pollutants in excess of those specified in the following table [20 DCMR 201]:

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Pollutant	Short-Term Limit (Natural Gas) (lb/hr)
Carbon Monoxide (CO)	0.22
Oxides of Nitrogen (NO _x)	0.21
Particulate Matter < 10 microns (PM10)	0.06
Volatile Organic Compounds (VOC)	0.02
Sulfur Dioxide (SO ₂)	0.004

- b. Visible emissions shall not be emitted into the outdoor atmosphere from the boilers, except that discharges not exceeding forty percent (40%) opacity (unaveraged) shall be permitted for two (2) 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, cleaning, adjustment of combustion controls, or malfunction of the equipment [20 DCMR 606.1]
- c. 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]
- d. Particulate matter emissions from each boiler shall not exceed 0.114 pound per million BTU. [20 DCMR 600.1]

III. Operational Limitations:

- a. The approved fuel for this boiler shall be natural gas with a maximum sulfur content of 2.5 grains per 100 standard cubic feet. No other fuel may be used. [20 DCMR 201].
- b. The boilers shall be operated at all times in a manner consistent with the manufacturer's specifications for the equipment. [20 DCMR 201]
- c. At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate each boiler in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [20 DCMR 201]

IV. Monitoring and Testing Requirements:

- a. If a stack test to determine compliance with Condition II (a) and/or (d) and (e) is requested by the Department in accordance with 20 DCMR 502.1, the written report of

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the results of such a stack test shall be furnished to the District in accordance with the following requirements [20 DCMR 502]:

1. One (1) original and one (1) copy of the test protocol shall be submitted to the following address a minimum of thirty (30) days in advance of the proposed test date. The test shall be conducted in accordance with Federal and District requirements.

Chief, Compliance and Enforcement Branch
Air Quality Division
1200 First Street NE
5th Floor
Washington, DC 20002

2. The test protocol shall be approved by the District prior to initiating any testing. Upon approval of the test protocol, the Company shall finalize the test date with the assigned inspector in the Permitting and Enforcement Branch. The District must have the opportunity to observe the test for the results to be considered for acceptance.
3. The final results of the testing shall be submitted to the District within sixty (60) days of the test completion. One (1) original and one (1) copy of the test report shall be submitted to the address in Condition IV (a) (1) above.
4. The final report of the results shall include the emissions test report (including raw data from the test) as well as a summary of the test results and a statement of compliance or non-compliance with permit conditions to be considered valid. The summary of results and statement of compliance or non-compliance shall contain the following information:
 - A. A statement that the owner or operator has reviewed the report from the emissions testing firm and agrees with the findings.
 - B. Permit number(s) and condition(s) which are the basis for the compliance evaluation.
 - C. Summary of results with respect to each permit condition.
 - D. Statement of compliance or non-compliance with each permit condition.
5. The results must demonstrate to the District's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.

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- b. The Permittee shall conduct and allow the Department access to conduct tests of air pollution emissions from any source as requested. [20 DCMR 502.1]
- c. The Permittee shall monitor the emission points for each unit as necessary to ensure compliance with Condition II(b). If visible emissions are observed, the Permittee shall either shut down the equipment and take action to make repairs prior to restart or shall take action to have a formal EPA Reference Method 9 (40 CFR 60, Appendix A) test performed within one week of observation to determine compliance with Condition II(b).

V. Record Keeping and Reporting Requirements:

- a. The Permittee shall keep records of the results of all emissions testing required for the boilers pursuant to Conditions IV (a).
- b. The Permittee shall maintain records of the maintenance performed on the boilers.
- c. The Permittee shall maintain records of the number of hours each boiler is operated. These data shall be maintained in a rolling twelve month sum format. [20 DCMR 500.2]
- d. The Permittee shall maintain records of the amount of fuel used each month in the boilers. These data shall be maintained in a rolling twelve month sum format. [20 DCMR 500.2]
- e. The Permittee shall calculate, record, and maintain in a rolling 12-month sum format, the emissions of the following pollutants:
 - 1. Oxides of nitrogen (NO_x);
 - 2. Sulfur dioxide (SO₂);
 - 3. Carbon monoxide (CO);
 - 4. Volatile organic compounds (VOCs);
 - 5. Lead (Pb) and lead compounds, as defined in 40 CFR 50.12;
 - 6. Total Particulate Matter (total filterable plus condensable); and
 - 7. Total HAPs.
- f. The Permittee shall maintain a copy of boiler specifications for the new boilers to document emission factors and maintenance requirements.

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- g. The Permittee shall maintain records of any visible emissions observed pursuant to Condition IV(c) and the actions taken to either show that the emissions are within the allowable range specified in Condition II(b) or the actions taken to repair the equipment. Any exceedances of the requirements of Condition II(b) shall be reported to the Department on a semi-annual basis (by March 1 and September 1 of each year for the second and first halves of the calendar year, respectively).

If you have any questions, please call me at (202) 535-1747 or John Nwoke at (202) 724-7778.

Sincerely,

Stephen S. Ours, P.E.
Chief, Permitting Branch

SSO: JCN