November 10, 2015

Mr. George S. Hawkins

General Manager

District of Columbia Water and Sewer Authority

5000 Overlook Avenue, SW

Washington, DC 20032

**RE: Permit (#5734-R1) to Operate One 8.31 MMBtu per Hour Natural Gas-Fired Boiler at Grit Chamber Building 2 of Blue Plains Waste Water Treatment Plant**

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 Department of Energy and Environment (the Department) shall be obtained before any person can construct and operate a stationary source in the District of Columbia. The application of the District of Columbia Water and Sewer Authority (the Permittee) to operate one (1) natural gas-fired, Burnham Model No. 4FW99350GGP boiler, with a rated heat input of 8.31 MMBtu per hour at the Grit Chamber Building 2, located at 5000 Overlook Avenue SW, Washington, DC, has been reviewed:

Based on the plans and specifications as detailed in the air permit application submittal received on June 3, 2015, the application is hereby approved, and the operation of the boiler is permitted, subject to the following conditions:

I. General Requirements:

* 1. This approval is issued pursuant to the air pollution control requirements of the applicable sections of 20 DCMR.

b. This permit will expire on November 9, 2020. If continued operation after this date is desired, the owner or operator shall submit an application for renewal by August 9, 2020. [20 DCMR 200.4]

c. Operation of equipment under the authority of this permit shall be considered acceptance of its terms and conditions.

1. 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.

1. This permit shall be kept on the premises and produced upon request.
2. Failure to comply with the provisions of this permit may be grounds for suspension or revocation. [20 DCMR 202.2]
3. Within three (3) months of the issuance of this permit, the Permittee shall apply for amendment to an existing Chapter 3 operating permit or shall amend any pending Chapter 3 operating permit application to include the requirements of this permit. [20 DCMR 301.1(a)(2)]

II. Emission Limitations:

* 1. The boiler shall not emit pollutants in excess of those specified in the following table [20 DCMR 201]:

|  |  |
| --- | --- |
| **Pollutant** | **Short-Term Limit** **(Natural Gas) (lb/hr)** |
| Carbon Monoxide (CO) | 0.68 |
| Oxides of Nitrogen (NOx) | 0.81 |
| Total Particulate Matter (PM Total)\* | 0.06 |
| Sulfur Dioxide (SO2) | 0.005 |

\*PM Total includes both filterable and condensable fractions.

* 1. b. Visible emissions shall not be emitted into the outdoor atmosphere from the boiler, 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]
1. Particulate matter emissions from the boiler shall not be greater than 0.11 pounds per million BTU. [20 DCMR 600.1].

d. 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]

e. Emissions shall not exceed those achieved with the performance of annual combustion adjustments on the boiler. To show compliance with this condition, the Permittee shall, each calendar year, perform boiler combustion process adjustments with the following characteristics [20 DCMR 805.1(a)(4) and 20 DCMR 805.8(a) and (b)]:

1. Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer;

2. Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NOx and, to the extent practicable, minimize emissions of CO;

3. Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer; and

4. Adjustments shall be made such that the maximum emission rate for any contaminant does not exceed the maximum allowable emission rate as set forth in this section.

III. Operational Limitations:

* 1. a. The approved fuel for the boiler shall be natural gas. 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 the 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 performance testing of the boiler is required in accordance with Condition IV(b), the Permittee shall conduct performance testing on the boiler using natural gas, to determine compliance with Conditions II(a) (except SO2), (b), and (c) (or as otherwise directed by the Department) and shall furnish the Department with a written report of the results of such performance test 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 Department prior to initiating any testing. Upon approval of the test protocol, the Company shall finalize the test date with the assigned inspector in the Compliance and Enforcement Branch. The Department 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 Department 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 the permit condition.

D. Statement of compliance or non-compliance with each permit condition.

5. The results must demonstrate to the Department’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.

b. The owner or operator shall conduct and allow the Department access to conduct tests of air pollution emissions from any source as requested. [20 DCMR 502.1]

c. At least once per quarter, during operation of the boiler, the Permittee shall conduct visual observations of the emissions from the boiler. If no operations are occurring for the boiler during a given quarter, this shall be so noted. If emissions are visible, the Permittee shall make arrangements for prompt visible emissions testing by a person certified in accordance with EPA Reference Method 9 (40 CFR 60, Appendix A). Such a test shall consist of a minimum of 30 minutes of opacity observations for the boiler in question and shall be performed while firing at rates and conditions similar to those during which the visible emissions were observed.

d. Regardless of whether or not emissions are observed pursuant to Condition IV(c) of this permit, the Permittee shall conduct a minimum of one visible emissions test of the boiler each year. Such a test program shall consist of a minimum of 30 minutes of opacity observations of the boiler and shall be performed by a person certified in accordance with EPA Reference Method 9 (40 CFR 60, Appendix A).

V. Record Keeping and Reporting Requirements:

a. The Permittee shall keep records of the results of all emissions testing required for the boiler pursuant to Conditions IV(a) and (b) of this permit for a period of not less than five (5) years. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

b. The Permittee shall maintain records of all visible emissions monitoring performed pursuant to Condition IV(d), for a period of not less than five (5) years, including notes indicating when no observations were performed as a result of no operations of the boiler that quarter. These records shall be maintained in an organized fashion, shall include the identity of the person performing the monitoring, and shall be readily available for inspection by the Department. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

c. The Permittee shall maintain records of all Method 9 visible emissions testing performed pursuant to Conditions IV(c) and (d) for a period of not less than five (5) years. These records shall also include the identity of the person performing the visible emissions testing and documentation of his/her Method 9 certification. These records shall include documentation indicating whether the results show compliance with Condition II(b). [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

d. The Permittee shall maintain records of the amount of fuel used each month in the boiler. These data shall be maintained in a rolling twelve month sum format and records shall be maintained for a period of not less than five (5) years. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.2 and 500.8]

e. The Permittee shall, for a period of not less than five (5) years, maintain records of the activities performed and results of all boiler adjustments performed pursuant to Condition II(e) of this permit. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

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

Sincerely,

Stephen S. Ours, P.E.

Chief, Permitting Branch

SSO:JCN