August 30, 2016

Mr. Bill Walsh, General Manager

Wardman Hotel LLC

2660 Woodley Road NW

Washington, DC 20008

**RE: Permits (Nos. 7112, 7113, and 7114) to Modify and Operate Three Dual-Fuel Boilers (Boiler #1, Boiler #2, and Boiler #3, respectively) located at the Washington Marriott Wardman Park**

Dear Mr. Walsh:

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 Wardman Hotel LLC (the Permittee) to modify and operate three (3) identical boilers, listed in the table below, at the Permittee’s facility, located at 2660 Woodley Road NW, Washington, DC 20008 has been reviewed:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Boiler Name** | **ID Number** | **Model** | **Natural Gas Rating (MMBTU/hr)** | **No. 2 Fuel Oil Rating (MMBTU/hr)** | **Permit Number** |
| Boiler #1 | NB 44286 | CB-100-700 | 29.29 | 30.31 | 7112 |
| Boiler #2 | NB 44029 | CB-100-700 | 29.29 | 30.31 | 7113 |
| Boiler #3 | NB 44292 | CB-100-700 | 29.29 | 30.31 | 7114 |

Based on the plans and specifications as detailed in the air permit applications received on May 12, 2016, the applications are hereby approved, conversion of the fuel oil systems from No. 4 fuel oil to No. 2 fuel oil, and the subsequent operation of the boilers are 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 for the construction and operation of the boilers.

b. This set of permits will expire on August 29, 2021. If continued operation after this date is desired, the Permittee shall submit an application for renewal by May 29, 2021. [20 DCMR 200.4]

c. Construction or operation of equipment under the authority of this set of permits 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. If not already completed by the date of issuance of this set of permits, within twelve (12) months of issuance of this set of permits to 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 August 29, 2017.

II. Emission Limitations:

* 1. Each of the boilers (identified as Boiler #1, Boiler #2 and Boiler #3) shall not emit pollutants in excess of those specified in the following table [20 DCMR 201]:

|  |  |  |
| --- | --- | --- |
| **Pollutant** | **Short-Term Limit** **(Natural Gas) (lb/hr)** | **Short-Term Limit** **(No. 2 Fuel Oil) (lb/hr)** |
| Carbon Monoxide (CO) | 2.32 | 1.08 |
| Oxides of Nitrogen (NOx) | 1.38 | 4.33 |
| Total Particulate Matter (PM Total)\* | 0.21 | 0.71 |
| Volatile Organic Compounds (VOC) | 0.15 | N/A€ |
| Sulfur Dioxide (SO2) | 0.02 | 0.05 |

\*PM Total includes both filterable and condensable fractions.

€No limit is being established for VOC from No. 2 fuel oil combustion.

* 1. 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]
1. Particulate matter emissions from the each of the boilers shall not be greater than 0.08 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]

1. Emissions shall not exceed those achieved with the performance of annual combustion adjustments on each boiler for each fuel as specified in Condition III(c) and (d) and with the following characteristics [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 Condition II(a).

III. Operational Limitations:

* 1. a. The primary fuel for the boilers shall be natural gas. [20 DCMR 201].

 b. The alternative fuel for the boilers shall be No. 2 fuel oil containing a maximum of 0.0015 percent sulfur by weight. [20 DCM 801.1 and 20 DCMR 201]

c. The Permittee shall perform tune-ups on each unit annually for each fuel used in the unit. The first tune-up must be performed by March 21, 2014. Subsequent tune-ups must be conducted no more than 13 months after the previous tune-up. [40 CFR 63.11201(b) and 63.11223 and 20 DCMR 805] *Note that this is a streamlined permit condition. 20 DCMR 805 requires annual tune-ups, while 40 CFR 63, Subpart JJJJJJ requires less frequent tune-ups, but provides more specifics on what is required to complete a tune-up.*

1. In order to demonstrate continuous compliance, each tune-up shall be performed to meet the following criteria: [40 CFR 63.11223(b)]
	* 1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months).
		2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
		3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection).
		4. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer’s specifications, if available and with any nitrogen oxide requirement to which the unit is subject.
		5. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be made using a portable carbon monoxide analyzer.
		6. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.

e. The boilers shall be operated at all times in a manner consistent with the manufacturer’s specifications for the equipment. [20 DCMR 201]

IV. Monitoring and Testing Requirements:

a. By April 29, 2018 (coinciding with the expiration date of Chapter 3 Permit No. 025-R2-A1), the Permittee shall conduct performance tests on each of the three boilers, for both fuels, to determine compliance with Condition II(a) and (c) (except SO2, compliance with which shall be determined by fuel sampling and/or fuel supplier documentation) and shall furnish the District with a written report of the results of such performance tests 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 Permittee 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 Permittee shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.

b. The Permittee shall: [20 DCMR 502.1]

1. Comply with requirements of Condition IV(e) to ensure compliance with Condition II(b). [20 DCMR 502.1]; and

2. Conduct and allow the Department access to conduct tests of air pollution emissions from any source as requested.

c. At least once per week, during operation of each boiler, the Permittee shall conduct visual observations of the emissions from the stack. If no operations are occurring for a given boiler during a given week, 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 the same fuel as was in use when 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 each boiler each year for each fuel burned since the last visible emissions test required under this permit condition. If the only combustion of a given fuel since the last test was burned during periodic testing required by this permit, no visible emissions test for that fuel will be required under this condition. Such a test program shall consist of a minimum of 30 minutes of opacity observations of each boiler firing each fuel and shall be performed by a person certified in accordance with EPA Reference Method 9 (40 CFR 60, Appendix A).

e. Unless more frequent testing is specified elsewhere in this permit, the Permittee shall sample and test the fuel oil burned in the boiler at least once each calendar quarter or at the time of each fuel delivery, whichever is less frequent. For each sample, the Permittee must provide: [20 DCMR 502]

1. The fuel oil type and the ASTM method used to determine the type (see the definition of distillate oil in 40 CFR 60.41c for appropriate ASTM methods);

2. The weight percent sulfur of the fuel oil as determined using ASTM test method D-4294 or D-5453 or other method approved in advance by the Department;

3. The date and time the sample was taken;

4. The name, address, and telephone number of the laboratory that analyzed the

 sample; and

5. The type of test or test method performed.

In lieu of sampling and testing fuel oil each quarter for each of these data, the Permittee may obtain any or all of these data from the fuel oil supplier at the time of delivery and submit fuel receipts and fuel supplier certifications for all fuel deliveries that provide all of the above quality of fuel data (or those for which sampling and testing was not performed at the time of delivery) as well as the name of the fuel oil supplier, the date of delivery, and the sulfur content of the oil.

Note that the sulfur content data obtained from the fuel supplier must be the results of specific tests of the fuel at hand or the most recent representative fuel analysis from the fuel terminal prior to the fuel supplier obtaining the fuel for delivery to the Permittee, if such terminal analyses are performed on at least a monthly basis. General fuel specifications are not acceptable for this datum.

Terminal specifications (with references to appropriate ASTM methods as defined above) may be used to document the fuel oil type if the fuel supplier provides written certification that this was the material purchased from the terminal and delivered to the facility. If this method of determining the fuel oil type is used, the Department may opt to require occasional supplemental sampling and testing of the fuel oil to confirm these certifications.

If any of these data cannot be obtained from the fuel supplier, it is the responsibility of the Permittee to sample the fuel and have it analyzed to obtain the required data.

1. The Permittee shall monitor the number of hours each boiler is operated while firing No.2 fuel oil.
2. Each boiler must have a one-time “energy assessment” (as defined in 40 CFR 63.11237) performed by a “qualified energy assessor” (as defined in 40 CFR 63.11237) by March 21, 2014. An energy assessment completed on or after January 1, 2008 that meets or is amended to meet the energy assessment requirements of this condition satisfies the energy assessment requirement. Note that energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement.

The energy assessment must include [40 CFR 63.11196(a)(3), 63.11201(b), and Table 2 of Subpart JJJJJJ]:

1. A visual inspection of the boiler system,

2. An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints,

3. An inventory of major “energy use systems” (as defined in 40 CFR 63.11237) consuming energy from affected boiler(s) and which are under the control of the boiler owner/operator,

4. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,

5. A list of major energy conservation measures that are within the facility’s control,

6. A list of the energy savings potential of the energy conservation measures identified, and

7. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

V. Record Keeping and Reporting Requirements:

a. The Permittee shall keep records of the results of all emissions testing required for each boiler pursuant to Conditions IV(a) and IV(b)(2) of this permit for a period of not less than five (5) years from the date of such test, monitoring, sample measurement, report or application. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

b. The Permittee shall keep records of the results of all fuel sulfur testing and fuel supplier certifications obtained pursuant to Condition IV(e) for a period of not less than five (5) years. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

c. 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 week. 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 District. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

d. 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 500.8]

1. The Permittee shall maintain records of the number of hours each boiler is operated using each fuel each month. These data shall be maintained in a rolling twelve month sum format. [20 DCMR 500.2]
2. The Permittee shall maintain records of the amount of each fuel used each month in the boilers. These data shall be maintained in a rolling twelve month sum format. [20 DCMR 500.2]
3. The Permittee shall maintain onsite and submit, if requested by the EPA Administrator or the Department, an annual report containing the information in paragraphs V(g)(1) through (3) of this section [40 CFR 63.11223(a)(6) and 20 DCMR 500.1].

 The concentration of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

A description of any corrective actions taken as a part of the tune-up of the boiler.

The type and amount of fuel used over the 12 months prior to the annual tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

1. If not already completed at the time of issuance of this permit, submit an “Initial Notification of Applicability” with regard to the EPA Administrator with respect to the applicability of 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources as required by 40 CFR 63.11225(a)(4).
2. Submit a biennial compliance report containing the following information with the annual Title V compliance certification required pursuant to Condition I(d)(2) of this permit by March 1, 2014 and every two years thereafter [40 CFR 63.11225(b)]:
3. Company name and address;
4. Statement by a responsible official, with the official’s name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR 63, Subpart JJJJJJ.
5. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.
6. The Permittee must keep a copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart JJJJJJ and this section and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted. [40 CFR 63.11225(c)(1)]
7. The Permittee must keep records to document compliance with the requirements of Condition III(c) and (d) as follows [40 CFR 63.11225(c)(2)]:
8. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer’s specifications to which the boiler was tuned.
9. Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel, including whether the fuel has received a non-waste determination by the Permittee or EPA, and the total fuel usage amount with units of measure.
10. The Permittee must keep records of the occurrence and duration of each malfunction of each boiler, or of any associated air pollution control and monitoring equipment. [40 CFR 63.11225(c)(4)]
11. The Permittee must keep records of all actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11225(c)(5)]
12. The Permittee must submit to the EPA Administrator a signed certification in the Notification of Compliance Status report that an energy assessment of each boiler and its energy use systems was completed in accordance with 40 CFR 63, Subpart JJJJJJ, Table 2 and is an accurate depiction of your facility. [40 CFR 63.11214(c)]

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