

GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment

Air Quality Division



TO: File

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

FROM: Olivia Achuko   
Environmental Engineer

SUBJECT: **United States Postal Service Headquarters- L'Enfant Plaza  
Permits #s 6804 & 6805 to Operate Two (2) Dual Fuel Fired Boilers**

DATE: May 30, 2014

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***BACKGROUND INFORMATION***

The United States Postal Service (USPS) (the Permittee) submitted a permit application for operation permits for two (2) boilers at its headquarters, located at 475 L'Enfant Plaza. In a conversation with Stephen Ours on May 30, 2014, Stephen Hurley of the USPS confirmed that the building is owned by USPS and is not affiliated with JBG, a company who owns many of the other buildings in the L'Enfant Plaza Southwest complex. The boilers are two identical 10 MMBtu Cleaver Brooks boilers that were installed in 2011 without a construction permit. When the Permittee realized that a permit is needed for such units, an application form was submitted for the two boilers and one emergency generator on October 17, 2013. The emergency generator permit was issued separately.

The Permittee has not requested that any of the materials submitted with this application be held confidential.

***TECHNICAL INFORMATION***

The two boilers are already installed and in operation therefore the permit is issued as an operation permit only. The boilers are each 10 MMBtu/hr and are required to obtain Chapter 2 permits before installation and operation pursuant to our regulation. More detailed technical information is attached to the application form.



## **CHAPTER 2 TECHNICAL MEMORANDUM**

**United States Postal Service Headquarters- L'Enfant Plaza  
Permits #s 6804 & 6805 to Operate Two (2) Dual Fuel Fired Boilers  
May 22, 2014  
Page 2**

### ***REGULATORY REVIEW***

#### **Chapter 2, Section 200: General Permit Requirements**

The boilers are each 10 MMBtu/hr Cleaver Brooks dual fuel fired boilers with serial numbers BT 042021-1-1 and BT 0402-1-2, respectively. Since each of the boilers has a heat input greater than 5 MMBtu/hr and the potential to emit air pollutants, a Chapter 2 permit is required before construction and operation can begin. In this case, the application was submitted after the installation was completed and operation began.

#### **Chapter 3: Operating Permit Requirements**

Upon review of the submitted documentation, the combined potential emissions from the boilers and one 750 kW emergency generator do not exceed the 25 tons per year threshold for a major source of oxides of nitrogen (NO<sub>x</sub>) or any other applicable major source thresholds. Therefore no Title V permit or new source review permit is required.

#### **Chapter 5, Source Monitoring and Testing**

The Permittee must maintain written records of the amount emissions of the pollutants specified in Conditions II(a) and (b) from the boilers in accordance with 30 DCMR 500.2. These requirements have been established in Conditions V of the permit.

#### **20 DCMR Chapter 6: Particulates**

20 DCMR 600.1 is applicable to this equipment, resulting in a total suspended particulate limit of 0.102 lb/MMBTU, found in Condition II(d) of the permit. Compliance with this condition will be determined by stack testing required by Condition IV(a).

Additionally, the visible emission limitations of 20 DCMR 606 are applicable to this facility. 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, or malfunction of the equipment. This requirement is contained in Condition II(b) of this permit.

#### **20 DCMR 805 – Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen**

This regulation is not applicable because the source is not a major source of NO<sub>x</sub>.

## **CHAPTER 2 TECHNICAL MEMORANDUM**

### **United States Postal Service Headquarters- L'Enfant Plaza Permits #s 6804 & 6805 to Operate Two (2) Dual Fuel Fired Boilers**

May 22, 2014

Page 3

#### **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. It is contained in Condition II(c) of the permit.

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

The two identical boilers have heat input ratings equal to 10 MMBTU/hr and were installed after June 9, 1989, therefore this regulation is applicable. The back-up fuel for the boilers is #2 fuel oil. As an alternative to an emission limit, this regulation requires that the fuel oil sulfur content be no more than 0.50% by weight [40 CFR 60.42c(d)]. The application indicated that the facility is using fuel oil with 0.0015% sulfur by weight. Therefore, a limit of 0.0015 % has been included in Condition III(b) of the permit. This fuel sulfur limit also exempts the applicant from any particulate matter limits under this standard pursuant to 40 CFR 60.43c(e)(4).

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

The two boilers at this facility are considered “new” boilers under this rule as they were installed after June 4, 2010. However, at the request of the facility, they are permitted to burn natural gas as primary fuel and No. 2 fuel oil only during gas supply interruption and for periodic testing up to 48 hours during any calendar year. Therefore this subpart is not applicable as the units are considered gas-fired boilers under the rule and are therefore exempt [40 CFR 63.11195(e)].

### ***RECOMMENDATIONS***

The public notice announcement was submitted to the D.C. Register for publication in the June 6, 2014 edition. The draft permits are available for public comment through July 7, 2014. If no comments are received, I recommend that these permits be issued shortly after the expiration of the comment period. If comments are received, they will be addressed before issuance of any permits for the units.

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