

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: Abraham Hagos *Abraham T. Hagos 1/17/17*  
Environmental Engineer

SUBJECT: **United States Department of the Interior, 1849 C Street NW  
Permit Nos. 7089-7093 to Construct and Operate Five 6.0 MMBTU/hr  
Boilers**

DATE: January 17, 2017

---

***BACKGROUND INFORMATION***

On February 17, 2016, the Air Quality Division (“AQD”) of the Department of Energy and Environment (“DOEE” or “the Department”) received air permit applications from the United States Department of the Interior to construct and operate five natural gas-fired boilers at 1849 C Street NW.

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

***TECHNICAL INFORMATION***

The five boilers have been identified as Boiler #1 through Boiler #5 in the permit. The boilers are each rated at 6.0 MMBTU/hr heat input and fire only natural gas. They are AERCO Benchmark 6000 condensing hydronic boilers. More detailed technical information is included with the permit applications.

***REGULATORY REVIEW***

20 DCMR Chapter 2: General and Non-Attainment Area Permits:

The boilers are each 6.0 MMBTU/hr rated heat input natural gas-fired AERCO 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. The potential to emit each of the pollutants covered by 20 DCMR 209, Minor New Source Review, is less than 5 tons/yr for each of the units, therefore Minor New Source Review is not applicable.

20 DCMR Chapter 3: Operating Permits and Acid Rain Programs:

Upon review of the submitted documentation, the combined potential emissions from the boilers

## CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

United States Department of the Interior, 1849 C Street NW

Permit Nos. 7089-7093 to Construct and Operate Five 6.0 MMBTU/hr Boilers

January 17, 2017

Page 2

and the two Capstone microturbines being permitted under separate cover would not exceed the 25 tons per year of NO<sub>x</sub> threshold for a major source (nor any of the other major source thresholds) and therefore no Chapter 3 (Title V) permit is required.

### 20 DCMR Chapter 5: Source Monitoring and Testing:

Under this regulation, the Department establishes appropriate monitoring and testing requirements to ensure that the Permittee complies with all relevant emission and operational limits. Due to the small size of the boilers and the low potential to emit, minimal monitoring and testing requirements are appropriate for this equipment. If the Department has reason to suspect excess emissions from the equipment, Condition IV(a) allows the Department to require emission testing of the equipment. Quarterly visible emissions monitoring by a method similar to U.S. Environmental Protection Agency (EPA) Reference Method 22 is required pursuant to Condition IV(c). Annual formal EPA Reference Method 9 visible emissions testing is required pursuant to Condition IV(d). Fuel records are required to be maintained pursuant to Condition V(d). All applicable record keeping requirements associated with this permit were included in Condition V of the permit.

### 20 DCMR Chapter 6: Particulates:

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 the permit. Appropriate monitoring and testing (as discussed above) and record keeping requirements for the results of that monitoring and testing are also included in the permit.

20 DCMR Chapter 8, Section 805 – Reasonably Achievable Control Technology for Major Stationary Sources of Oxides of Nitrogen: The facility is not a major source hence the provision of this regulation is not applicable. This requirement was not included in the permits as a result.

### 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. 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 five identical boilers have heat input ratings equal to 6.0 MMBTU/hr which is less than the 10 MMBTU/hr applicability threshold for this regulation, therefore the requirements of this regulation **are not** included in this permit.

**CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM**

**United States Department of the Interior, 1849 C Street NW**

**Permit Nos. 7089-7093 to Construct and Operate Five 6.0 MMBTU/hr Boilers**

January 17, 2017

Page 3

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

The boilers at this facility are permitted to burn only natural gas, therefore this subpart is **not applicable**.

***RECOMMENDATIONS***

The public notice announcement will be submitted to the D.C. Register for publication in the January 27, 2017 edition. The draft permits are available for public comment through February 27, 2017. If no adverse comments are received during the public comment period, I recommend that the permit be issued promptly after the end of the comment period. If comments are received, they will be addressed before issuance of any permit.

SSOATH

