

GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment



Air Quality Division

December 27, 2012

Mr. James Schrote
Executive Director Facilities Services
The George Washington University (GWU)
2025 F Street, NW
Washington, DC 20052

RE: Permit (No. 6618-C) to Construct a Cogeneration Facility at Ross Hall

Dear Mr. Schrote:

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 or operate a stationary source in the District of Columbia. The application of The George Washington University (“Permittee”) to construct a gas turbine and heat recovery steam generator/duct burner facility, located at Ross Hall on GWU’s Foggy Bottom campus, 24th St. and H St. NW, Washington, DC, has been reviewed. The project consists of the following significant components:

- **Combined Heat and Power (CHP) Emission Units:**
 - One (1) Solar Centaur 50-T6200S Combustion Gas Turbine (CT) rated at 52.9 MMBtu/hr heat input firing natural gas (NG) only; and
 - One (1) Cleaver Brooks Slant Series S4-2816 Heat Recovery Steam Generator (HRSG) equipped with supplemental firing by NATCOM Duct Burner rated at 18.9 MMBtu/hr heat input , firing NG;
- **CHP Ancillary Equipment and Appurtenances:**
 - One (1) 4,600 kW Centaur 50 Gas Turbine Generator;
 - One (1) 24,500 lb/hr Water Tube Steam Boiler for the HRSG;
 - One (1) 2,974 lbm/hr Deaerator;
 - One (1) Water Treatment System;
 - One (1) Heat Exchanger for Condensate Return; and
 - One (1) Existing Steam – Receiving Turbine Generator.

Based on the submitted plans and specifications as detailed in the application dated June 13, 2012 and enclosed with the letter of the same date, your application to construct is hereby approved subject to the following conditions:



green forward



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I. General Requirements:

- a. The equipment shall be constructed and, upon receipt of a subsequent operating permit, operated, in accordance with the air pollution control requirements of 20 DCMR.
- b. This permit expires on December 26, 2015 [20 DCMR 200.4]. If continued construction after this date is desired, the owner or operator shall submit an application for renewal by September 26, 2015.
- c. Construction of equipment under the authority of this permit 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 permit shall be kept on the premises and produced upon request.
- f. Failure to comply with the provisions of this permit may be grounds for suspension or revocation. [20 DCMR 202.2]
- g. The Permittee shall, upon completion of the construction, request that the District Department of the Environment ("the Department") grant approval to operate.
 1. A separate application to operate pursuant to 20 DCMR Chapter 2 does not need to be submitted to the Department for the equipment or process covered by this construction permit. Upon a satisfactory demonstration by an on-site inspection that the equipment or process complies with all of the terms and conditions of this permit, and any other applicable requirements the Department will issue a Chapter 2 Operating Permit for this equipment or process.
 2. The applicant shall notify the Department sufficiently in advance of the demonstration and shall obtain the Department's prior concurrence of the operating factors, time period, and other pertinent details relating to the demonstration.

3. The provisions of 20 DCMR 200.2 shall not apply to the operation of equipment or processes for the purposes of initially demonstrating satisfactory performance to the Department following construction, installation, modification, or alteration of the equipment or processes.
- h. If modifications to the equipment design as submitted in the permit application, or any revision thereof, are required, an amendment to this construction permit shall be obtained before making these design changes, unless the Department determines that no such amendment is required.
- i. Any renovation or demolition activity that may occur as a part of this project must be performed in conformance with the requirements of 20 DCMR 800. If a permit is required under this section, a separate asbestos permit must be obtained. This construction permit does not replace any asbestos abatement permit that may be required.
- j. Within 12 months of the issuance of a permit to operate the equipment covered by this permit, the Permittee shall apply for an 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)]
- k. Within 15 days of receipt of a written request, the Permittee shall furnish to the District any information the District requests to determine whether cause exists for reopening or revoking the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish the District with copies of records required to be kept by this permit. [20 DCMR 302.1(g)(5)]

II. Facility-Wide Requirements Applicable to Permitted Equipment and Construction Processes:

The Permittee shall comply with the following general permit conditions:

a. General Maintenance and Operations

At all times, including periods of start-up and malfunction, the Permittee shall, to the extent practicable, maintain and operate stationary sources and fuel-burning equipment, and associated air pollution control equipment, in a manner consistent with good air pollution control practices 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 606.3 and 20 DCMR 201]

b. Emission Limitations:

1. Visible emissions shall not be emitted into the outdoor atmosphere from the emission units and control equipment, 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, if any, or malfunction of the equipment [20 DCMR 606.1].

2. Violation of standards set forth in Condition II(b)(1), as a result of unavoidable malfunction, despite the conscientious employment of control practices, shall constitute an affirmative defense on which the discharger shall bear the burden of proof. Periods of malfunction shall cease to be unavoidable malfunctions if reasonable steps are not taken to eliminate the malfunction within a reasonable time. [20 DCMR 606.4]
3. Where the presence of uncombined water is the only reason for failure of an emission to meet the requirements of Condition II(b)(1), Condition II(b)(1) shall not be applicable. [20 DCMR 606.6]
4. 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] *Note: This condition is District enforceable only.*

c. Operational Limitations:

The Permittee shall ensure that any fugitive dust associated with the construction or installation of the equipment covered by this permit is minimized or controlled in accordance with applicable provisions of 20 DCMR 605.

d. Monitoring and Testing Requirements:

1. The Permittee shall monitor the facility for compliance with the fugitive dust emissions limits contained in Condition II (c) of this permit and take appropriate action to address any excess fugitive dust from the facility.
2. 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]
3. The Permittee shall monitor the facility to ensure that visible emissions, odor and other nuisance air pollutants are not emitted in such quantities as to create any violation of Condition II (b) of this permit.

e. Record Keeping Requirements: [20 DCMR 200.7]

1. The Permittee shall maintain all records, including records of visual inspections, necessary for determining compliance with this permit in a readily accessible location for five (5) years and shall make these records available to the Department upon written or verbal request.
2. At a minimum, the following information shall be recorded and maintained in accordance with Condition II (e)(1) of this permit. All such records must be either initialed or signed by the person recording the information or maintained in a verifiable electronic system whose information can be certified as to its accuracy.

A. The Permittee shall maintain records of all routine and non-routine maintenance

performed on all equipment covered by this permit. These records shall include a description of the maintenance activity, any problem being corrected or other reason for the maintenance activity, and a statement indicating whether or not the problem was corrected;

- B. The Permittee shall keep records of any complaints received as well as any deviations from the requirements of Conditions II (b) of this permit, as well as any actions taken to correct any identified visible emission problem;
 - C. The Permittee shall maintain records of any equipment shutdowns related to improper operation of a control device and records of any control device malfunctions;
 - D. The Permittee shall maintain records of the training of the operators and maintenance staff to minimize the production of emissions during operation;
 - E. The Permittee shall maintain records of any deviations from the fugitive dust standards set forth in Condition II (c) and any corrective actions taken to return to compliance;
 - F. The Permittee shall maintain records of the results of any testing performed pursuant to Condition II (d)(2); and
 - G. The Permittee shall maintain and report a record of the quantities of natural gas consumed by all fuel-burning equipment (as defined in 20 DCMR 199) during construction or testing or operation. Note that this definition does not cover internal combustion engines.
- f. Reporting Requirements: [20 DCMR 200.7]
- 1. The Permittee shall immediately report to the Department, by telephone, any permit deviation that poses an imminent and substantial danger to public health, safety, or the environment. [20 DCMR 302.1(c)(3)(C)(ii)]
 - 2. In addition to complying with Condition II (f)(1) and any other reporting requirements mandated by the 20 DCMR or this permit, the owner or operator shall, within thirty (30) calendar days of becoming aware of any occurrence of excess emissions, supply the Department in writing with the following information:
 - A. The name and location of the facility;
 - B. The subject source(s) that caused the excess emissions;
 - C. The time and date of the first observation of the excess emissions;
 - D. The cause and estimated/expected duration of excess emissions;

- E. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
 - F. The proposed corrective actions and schedule to correct the conditions causing the excess emission.
3. Annually, by March 1 of each year, the Permittee shall submit a report of calculated emissions from the emission unit covered by this permit for the previous calendar year. This report of emissions shall include back-up information justifying how the emissions were calculated. Any exceedances of emission limits in Table 1 of this permit shall be clearly identified in the report.
4. All reports required pursuant to this permit shall be submitted to:

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

III. Emission Units Specific Conditions:

The Permittee shall not exceed the emission limits in the following tables as applicable:

Table 1: Total 12-Month Rolling Emission Limits from Permitted Equipment¹

Pollutant	12-Month Rolling Emissions Limit (tons/12 mo. rolling period)
Particulate Matter (PM) (Total) ^{2,3}	7.3
Oxides of Sulfur (SOx)	1.2
Oxides of Nitrogen (NOx)	23.0
Volatile Organic Compounds (VOC)	2.4
Carbon Monoxide (CO)	21.4

1. The equipment covered consists of one Solar Centaur 50 gas turbine, and one HRSG/duct burner.

2. PM (Total) is the sum of the filterable PM and condensable PM.

3. All PM is expected to be smaller than 2.5 microns, so PM (Total) equals PM2.5

Table 2- Maximum Hourly Emissions (lbs/hr) when Operating Between 50% and 100 % Load, Inclusive

Pollutants	Solar Centaur 50 Gas Turbine (CT) and HRSG/Duct Burner (HDB)
PM (Total)	1.7
SOx	0.3
NOx	5.2
VOC	0.60
CO	4.9

- a. Combustion Gas Turbine CT: One (1) Solar Centaur 50 combustion gas turbine (CT) rated at a heat input capacity of 52.9 MMBtu/hr, natural gas (NG).

1. Emission Limitations:

- A. The gas combustion turbine shall not emit pollutants in excess of those specified in Tables 1 and 2. [20 DCMR 201]
- B. Particulate emissions (total filterable only) from the gas combustion turbine shall not exceed 0.069 pound per million Btu. [20 DCMR 600.1]
- C. Sulfur dioxide (SO₂) emissions from the gas turbine shall not exceed 0.060 lb SO₂/MMBtu heat input for each calendar month when natural gas is burned. [40 CFR 60.4330]:
- D. NO_x emissions from the turbine without supplemental firing shall not exceed 15 ppmvd at 15% O₂. [40 CFR 60.4320 and 60.4325 and 20 DCMR 201] *Note that this is a streamlined emission rate limit, and is more stringent than the limits found in 40 CFR 60, Subpart KKKK for NO_x emissions cited above. Compliance with this condition will ensure compliance with both requirements.*
- E. NO_x emissions from the turbine when fired with supplemental duct burner firing shall not exceed 18 ppmvd at 15% O₂. [40 CFR 60.4320 and 60.4325 and 20 DCMR 201] *Note that this is a streamlined emission rate limit, and is more stringent than the limits found in 40 CFR 60, Subpart KKKK for NO_x emissions cited above. Compliance with this condition will ensure compliance with both requirements.*

2. Operational Limitations:

- A. The sole allowable fuel for the combustion gas turbine shall be natural gas. The sulfur content of the fuel shall be no more than 0.0034 lbm/MMBTU and shall be low enough to ensure compliance with Condition III (a)(1)(C). [20 DCMR 201]
- B. The Permittee shall install and maintain a totalizing natural gas fuel meter on the turbine to track natural gas usage.
- C. The Permittee shall operate and maintain the combustion turbine in a manner consistent with good air pollution control practices for minimizing emissions at all times including startup, shutdown, and malfunction. [40 CFR 60.4333]
- D. All electricity produced by the covered equipment shall be used by the Permittee and shall not be sold.

3. Monitoring and Testing:

- A. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, and annually thereafter (no more than 14-months after the previous performance test), the Permittee shall conduct a Department- approved compliance source test for NO_x in accordance with 40 CFR 60.8 and 40 CFR 60.4400, on the gas turbine for each of the operational modes, specifically, the combustion turbine with unfired HRSG and the combustion turbine with supplemental fired HRSG (by duct burner), to demonstrate compliance with the emissions limitations contained in Conditions III(a)(1)(D) and (E). The annual test shall be performed no sooner than 9 months and no later than 14 months after the previous source test. [20 DCMR 502, 40 CFR 60.8, 40 CFR 60.4340, and 40 CFR 60.4400]
- B. The sample port design and locations shall be approved by the Department prior to installation. [20 DCMR 502]
- C. In addition to the requirements of 40 CFR 60.4400, the annual source test, performed in accordance with a Permittee - furnished test protocol approved by the Department, shall be used to determine the following [20 DCMR 502]:
- i. natural gas flow rate to the turbine (dry basis);
 - ii. Concentrations of carbon dioxide (CO₂), methane, and total non-methane organic compounds (NMOC) (all in dry basis) in natural gas;
 - iii. Exhaust gas flow rate from the gas turbine (dry basis); and
 - iv. Exhaust gas concentrations (dry basis) of NO_x, CO, NMOC, and O₂ in the stack gas.
- D. The source test report shall provide the emissions results for NO_x, CO and NMOC in the following units: ppmv, dry (corrected to 15% oxygen), lb/hour, and lb/MMBtu heat input (HHV basis). [20 DCMR 502]
- E. To demonstrate ongoing compliance with the NO_x and CO emissions limitations in Condition III (a)(1) and Condition III, Table 2, the Permittee shall measure and record the 15 minute average concentrations of NO_x and CO, corrected to 15% oxygen (dry basis), from each operating turbine by testing the flue gas with either a Department-approved hand-held analyzer or a proposed alternative test method acceptable to the Department. This testing shall be performed at a frequency of at least once per calendar quarter. [20 DCMR 502]

Prior to initiating this monitoring procedure, the Permittee shall obtain approval of a monitoring plan from the Department, consistent with the procedures set forth in Conditions III(a)(3)(I)(i) and (ii). The results shall be submitted on a semi-annual basis with the semi-annual and annual compliance certification reports required by the facility's Chapter 3 (Title V) operating permit. Individual test protocols are not required for each

quarterly monitoring test performed pursuant to this condition. Reporting pursuant to Conditions III(a)(3)(I)(iii) through (v) is not required unless the results show an exceedance of any emission limit, in which case those reporting requirements shall be followed, as applicable.

- F. The emissions of NO_x and CO shall be determined by mass balance using the analytic test results in conjunction with the turbine flue gas flow rate. When actual flue gas rate measurements are not available, the Permittee shall assume 19.94 dscf flue gas per dscf natural gas, corrected to 15% oxygen, dry basis or other factor determined to be more accurate by the Department. [20 DCMR 502]
- G. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the combustion turbine, and once every five years thereafter, the Permittee shall perform testing with and without supplemental duct firing using methods approved in advance by the Department to determine compliance with the remaining emission limits contained in Condition III, Table 2 and Condition III (a)(1) of this permit. If the testing performed to meet the 180 day deadline is determined, by the Department, not to be representative of maximum operations due to delays in full startup, the Department may require additional testing at a time following completion of startup to ensure that representative testing is performed.
- H. The Permittee shall submit a suitable test method for showing compliance with the sulfur content requirement of Condition III (a)(2)(A) that is consistent with the requirements of 40 CFR 60.4360. Such a test method shall be approved by the Department prior to conducting the test.
- I. Except as specified in Condition III(a)(3)(E), the Permittee shall obtain approval for the testing required by this permit and furnish the Department with a written report of the results of the performance tests and/or compliance tests in accordance with the following requirements [20 DCMR 502]:
 - i. 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
 - ii. 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 Compliance and Enforcement Branch. The District must have the opportunity to observe the test for the results to be considered for acceptance.

- iii. 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 III (a)(3)(I)(i) above.
 - iv. 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:
 - 1. A statement that the owner or operator has reviewed the report from the emissions testing firm and agrees with the findings.
 - 2. Permit number(s) and condition(s) which are the basis for the compliance evaluation.
 - 3. Summary of results with respect to each permit condition.
 - 4. Statement of compliance or non-compliance with each permit condition for compliance with which was tested.
 - v. The results of the testing must demonstrate to the District's satisfaction that the emission units are 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 testing may result in enforcement action.
 - vi. For each affected unit that performs annual performance tests in accordance with 40 CFR 60.4340(a), the Permittee must submit a written report of the results of each performance test to the U.S. EPA before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375].
 - J. The total sulfur content of the fuels used in the combustion turbines shall be monitored in accordance with the requirements of 40 CFR 60.4360. Alternatively, if applicable, the Permittee may avoid monitoring the total sulfur content of the fuels if they can be demonstrated not to exceed concentration that would lead to potential SO₂ emissions of 0.060 lbs SO₂/MMBtu heat input in accordance with 40 CFR 60.4365. The Department must approve any such demonstration.
4. Record Keeping Requirements: [20 DCMR 200.7]
- A. The Permittee shall maintain all records, including records of visual inspections, necessary for determining compliance with this permit in a readily accessible location for five (5) years and shall make these records available to the Department upon written or verbal request.

B. At a minimum, the following information shall be recorded and maintained in accordance with Condition III (a)(4)(A) of this permit. All such records must be either initialed or signed by the person recording the information or maintained in a verifiable electronic system whose information can be certified as to its accuracy.

- i. Monthly records of the quantity of natural gas (thousand scf) burned in the turbine;
- ii. Records of all NO_x and CO measurements (in ppmvd, at 15% oxygen, and calculated in lb/hr, as applicable) as well as all annual test results and
- iii. Records of total emissions of each pollutant covered by Condition III, Table 2, from the turbine, kept in a 12-month rolling sum format.

5. Reporting Requirements: [20 DCMR 200.7]

The Permittee shall comply with all the reporting requirements contained in Condition III (a)(3) of this permit, in addition to complying with Condition II (f).

b. HRSG/Duct Burner HDB: One (1) 18.9 MMBtu/hr heat input (NG) Cleaver Brooks Heat Recovery Steam Generator/Duct Burner (HDB).

1. Emission Limitations:

- A. The HRSG/Duct Burner (HDB), shall not emit pollutants in excess of 0.1 lb NO_x/MMBtu and those in Condition III, Table 2. [20 DCMR 201]
- B. Particulate emissions (total filterable only) from the HDB shall not exceed 0.087 pounds per million Btu. [20 DCMR 600.1]
- C. Sulfur dioxide emissions shall not exceed 0.060 lb SO₂/MMBtu heat input. [40 CFR 60.4305 and 40 CFR 60.4330(a)(2)]
- D. NO_x emissions from the Combustion Turbine/HDB (CT/HDB) train exhaust (while supplemental firing with duct burner) shall not exceed 18 ppmvd at 15% O₂ as required by Condition III(a)(1)(E). [20 DCMR 201 and 40 CFR 60.4320] *Note that this is a streamlined permit condition and is more stringent than the requirements of 40 CFR 60.4320, therefore compliance with the limit established pursuant to 20 DCMR 201 will ensure compliance with 40 CFR 60.4320.*
- E. NO_x emissions from CT/HDB train shall not exceed 5.2 lb/hr (the cumulative lb/hr emission rate contained in Condition III, Table 2 of this permit) as measured at the HRSG exhaust. [20 DCMR 201]

2. Operational Limitations:

- A. The Permittee shall install and maintain approved totalizing natural gas fuel meters to track natural gas combustion in the duct burners.
- B. Only natural gas and CT exhaust gas may be combusted in the duct burners
- C. The duct burner shall not burn more than 165.6 million cubic feet of natural gas in any 12 month rolling period: [20 DCMR 201]

3. Monitoring and Testing:

- A. The Permittee shall perform testing for compliance with the emission limits contained in Condition III(b)(1) of this permit in accordance with the requirements of Conditions III(a)(3)(A) and (G) and 40 CFR 60, Subpart KKKK. [40 CFR 60.8, 40 CFR 60.4340, 40 CFR 60.4400, and 20 DCMR 502]
- B. For the CT/HDB integrated system with supplemental heat, the Permittee must measure the total NO_x emissions after the duct burner, and not directly after the turbine. The duct burner must be in operation during the performance test. [40 CFR 60.4400(b)(2)]
- C. The sample port design and location shall be approved by the Department prior to installation. [20 DCMR 201]
- D. In addition to the requirements in Condition III (b)(3)(A), the annual source test shall be used to determine the following [20 DCMR 502]:
 - i. Natural gas flow rate to the duct burner (dry basis);
 - ii. Natural gas concentrations (dry basis) of carbon dioxide (CO₂), methane, total non-methane organic compounds (NMOC);
 - iii. Exhaust gas flow rate from the gas duct burner (dry basis); and
 - iv. Exhaust gas concentrations (dry basis) of NO_x, CO, NMOC, and O₂ in the stack gas.
- E. The source test report shall provide the emissions results for NO_x, CO and NMOC in the following units: ppmv, dry (corrected to 15% oxygen), lb/hour, and lb/MMBtu heat input (HHV basis) [20 DCMR 502]
- F. To demonstrate ongoing compliance with the NO_x and CO emissions limitations in Condition III (b)(1) of this permit, the Permittee shall perform regular testing in accordance with Conditions III (a)(3)(E) and (F) of this permit. [20 DCMR 502]

G. The Permittee shall obtain approval for the testing and furnish the Department with a written report of the results of the performance tests and/or compliance tests in accordance with the following requirements [20 DCRM 502]:

- i. 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

- ii. 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 Compliance and Enforcement Branch. The District must have the opportunity to observe the test for the results to be considered for acceptance.
- iii. 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 III (b)(3)(G)(i) above.
- iv. 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:
 1. A statement that the owner or operator has reviewed the report from the emissions testing firm and agrees with the findings.
 2. Permit number(s) and condition(s) which are the basis for the compliance evaluation.
 3. Summary of results with respect to each permit condition.
 4. Statement of compliance or non-compliance with each permit condition for compliance with which was tested.
- v. The results of the testing must demonstrate to the District's satisfaction that the emission units are 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.

H. The total sulfur content of the fuels used in the duct burner shall be monitored in accordance with the requirements of 40 CFR 60.4360. Alternatively, if applicable, the Permittee may avoid monitoring the total sulfur content of the fuels if they can be demonstrated not to exceed a concentration that would lead to potential SO₂ emissions of 0.060 lbs SO₂/MMBtu heat input in accordance with 40 CFR 60.4365. The Department must approve any such demonstration.

4. Record Keeping Requirements: [20 DCMR 200.7]

- A. The Permittee shall maintain all records, including records of visual inspections, necessary for determining compliance with this permit in a readily accessible location for five (5) years and shall make these records available to the Department upon written or verbal request.
- B. At a minimum, the following information shall be recorded and maintained in accordance with Condition III (b)(4)(A) of this permit. All such records must be either initialed or signed by the person recording the information or maintained in a verifiable electronic system whose information can be certified as to its accuracy.
- i. Monthly records of the quantity of natural gas (thousand scf) burned in the duct burner;
 - ii. Records of all NO_x and CO measurements (in ppmvd, at 15% oxygen, and calculated lb/hr, applicable);
 - iii. Records of the results of all annual test results; and
 - iv. Records of total emissions of each pollutant covered by Condition III, Table 2 from the duct burner, kept in a 12-month rolling sum format.

5. Reporting Requirements: [20 DCMR 200.7]

- A. The Permittee shall comply with all the reporting requirements in Condition III (b)(3) of this permit, in addition to complying with Condition II (f) as applicable. [20 DCMR 201]
- B. The Permittee shall, within 48 hours of becoming aware of an out-of-service situation or malfunction of the duct burner that could result in violation of any of the emission limits Condition III, Table 2, report the incident to the District pursuant to Condition II (f)(2) [20 DCMR 201]

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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

pc: John C. Nwoke
Neil Williams

01951