January 31, 2017

Kate Markert

Executive Director

Hillwood Estate, Museum & Gardens

4155 Linnean Avenue, NW

Washington, DC 20008

**RE: Permit #7124 to Operate an Emergency Generator Set at 4155 Linnean Ave NW**

Dear Ms. Markert:

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 new stationary source in the District of Columbia. The application of Hillwood Estate, Museum & Gardens, (“the Permittee”) to operate one (1) 600 kWe emergency generator set with a 900 hp diesel-fired engine at the property located at 4155 Linnean Avenue NW, Washington DC 20004, per the submitted plans and specifications, is hereby approved, subject to the following conditions:

I. General Requirements:

a. The emergency generator set shall be operated in accordance with the air pollution control requirements of 20 DCMR.

b. This permit will expire on January 30, 2022. [20 DCMR 200.4] If continued operation after this date is desired, the Permittee shall submit an application for renewal by October 30, 2021.

c. Operation 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.

1. Failure to comply with the provisions of this permit may be grounds for suspension or revocation. [20 DCMR 202.2]

II. Emission Limitations:

a. Visible emissions shall not be emitted into the outdoor atmosphere from this generator, 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].

b. 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]

III. Operational Limitations:

a. The emergency generator shall not be operated in excess of 500 hours in any given 12 month period. If operation beyond 500 hours is desired, the Permittee shall submit an application to amend this permit to comply with the conditions of 20 DCMR 805 and shall obtain the Department’s approval of such application prior to initiating such operation.

1. Except as specified in Condition III(c), the emergency generator shall be operated only during emergencies resulting from electrical power outages due to: a failure of the electrical grid; on-site disaster; local equipment failure; or public service emergencies such as flood, fire, natural disaster, or severe weather conditions (e.g. hurricane, tornado, blizzard, etc.). [20 DCMR 201]

c. The emergency generator may be operated for the purpose of maintenance checks and readiness testing and for non-emergency purposes for a period not to exceed one hundred (100) hours per calendar year as specified in Conditions III(c)(1) and (2) below. Any such operation shall be considered as part of the 500 hours allowed under Condition III(a) above. [20 DCMR 201]

1. The emergency generator may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. [40 CFR 63.6640(f)(2)(i) and DCMR 201]; and

2. The emergency generator may be operated for up to fifty (50) hours per calendar year in non-emergency situations, subject to the following conditions [40 CFR 63.6640(f)(4) and 20 DCMR 201]:

1. Any such operation shall be counted as part of the 100 hours per calendar year for maintenance and testing as provided in Condition III(c).
2. These 50 hours of non-emergency operations per calendar year cannot be used for peak shaving, or as part of any program to supply power to generate income for the facility as part of a financial arrangement with another entity;
3. All operations prohibited under Condition III(f) are also prohibited under this condition; and
4. All operations of the emergency generator resulting from a deviation in voltage or frequency from the electric provider to the premises shall be considered non-emergency operation and counted as part of this 50 hour per calendar year allowance.

d. The Permittee shall purchase only diesel fuel that contains a maximum sulfur content of 15 ppm (0.0015 percent by weight) for use in the generator. [20 DCMR 201 and 20 DCMR 801]

e. The emergency generator shall not be operated in conjunction with a voluntary demand-reduction program or any other interruptible power supply arrangement with a utility, other market participant, or system operator. [20 DCMR 201]

f. The emergency engine shall be operated and maintained in accordance with the manufacturer’s emission-related written instructions or the Permittee shall develop and implement a written maintenance plan consistent with industry standards for similar models if manufacturer instructions are unavailable. Any Permittee-developed maintenance plan must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR 63, Subpart ZZZZ, Table 6, and 20 DCMR 201]

g. In addition to the requirements of Condition III(f), the following maintenance activities shall be performed on the schedules specified [40 CFR 63.6603(a), 40 CFR 63.6640(a), and 40 CFR 60, Subpart ZZZZ, Table 2d]:

1. Change oil and filter every 500 hours of operation or annually, whichever comes first, except that sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend this specified oil change requirement. If such an oil analysis program is to be used, the plan shall be submitted to the Department for review at the time of its establishment;

2. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

h. The Permittee shall minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)]

i. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this permit and 40 CFR 63, Subpart ZZZZ have been achieved. Determination of whether acceptable operating procedures are being used will be based on information available to the Department and the EPA Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, review of operation and maintenance records, and inspection of the source. [20 DCMR 201 and 40 CFR 63.6605]

IV. Monitoring and Testing Requirements:

a. The Permittee shall monitor the date, time, duration, and reason for each emergency generator startup to ensure compliance with Conditions III(a), (b), (c), and (e). [20 DCMR 500.2]

b. In order to ensure compliance with Condition III(a), the Permittee shall monitor the total hours of operation each month with the use of a properly functioning, non-resettable hour metering device. Such a device must be installed if not already installed on the equipment. [40 CFR 63.6625(f) and 40 CFR 63.6655(f)]

c. The Permittee shall test fuel oil as necessary to show compliance with Conditions III(d) and V(c) in accordance with appropriate ASTM methods. [20 DCMR 502.3 and 502.6]

d. 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]

V. Record Keeping Requirements:

1. The following information shall be recorded, initialed, and maintained in a log at the facility for a period not less than five (5) years [20 DCMR 500.8, 40 CFR 63.6660, 40 CFR 66.6655, and 40 CFR 63.10(b)]:

1. The date, time, duration, and reason for each start-up of the emergency generator, including the following specific information:

i. If the unit is operated in non-emergency situations pursuant to Condition III(c)(2), the specific purpose for each operation period must be recorded; and

ii. If the unit is operated for emergency purposes, what classified the operation as emergency;

2. The total hours of operation for each month and the cumulative 12-month rolling period shall be calculated and recorded within 15 days of the end of each calendar month for the previous month and the 12 –month period ending at the end of that month;

3. The total hours of operation for maintenance checks and readiness testing and non-emergency operation pursuant to Condition III(c) each month, and totaled for each calendar year by January 15 of each year for the previous calendar year;

4. The total hours of operation each calendar year for non-emergency purposes pursuant to Condition III(c)(2), totaled by January 15 of each calendar year for the previous calendar year;

5. Records of the maintenance performed on the unit [*Note that these records must be sufficient to document that the Permittee is complying with the requirements of Conditions III(f) and (g)]*;

6. Records of the results of any visible emissions monitoring performance;

7. Records of the occurrence and duration of each malfunction of operation; and

8. Records of the actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunction process and air pollution control and monitoring equipment to its normal or usual manner of operation.

b. The Permittee shall maintain a copy of the emergency generator’s manufacturer’s maintenance and operating recommendations at the facility. If such documentation is unavailable, the Permittee shall maintain documentation of the written maintenance plan consistent with industry standards in accordance with which the unit is being maintained. [20 DCMR 500.2]

c. For each delivery of diesel fuel, the Permittee shall maintain one of the following:

1. A fuel delivery receipt containing the date, fuel type, and amount of the delivery and certification from the fuel supplier that the fuel delivered was tested in accordance with an appropriate ASTM method (specified in the certification) and met the requirements of Condition III(d); or

2. A fuel delivery receipt and documentation of sampling and analysis containing the following information:

i. 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);

ii. 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;

iii. The date and time the sample was taken;

iv. The name, address, and telephone number of the laboratory that analyzed the sample; and

v. The test method used to determine the sulfur content.

If you have any questions, please call me at (202) 535-1747 or Olivia Achuko at (202) 535-2997.

Sincerely,

Stephen S. Ours, P.E.

Chief, Permitting Branch

SSO:OA