

GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment



Air Quality Division

June 20, 2013

Permittee: Washington Aqueduct
U.S. Army Corps of Engineers
Baltimore District

Mr. Thomas P. Jacobus, General Manager
Washington Aqueduct
U.S. Army Corps of Engineers, Baltimore District
5900 MacArthur Boulevard, N.W.
Washington, DC 20016-2514

RE: Permits to Operate Emergency Diesel Generators at the McMillan Water Treatment Plant

Dear Mr. Jacobus:

Pursuant to sections 200.1 and 200.2 of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), a permit from the District Department of the Environment (the Department) shall be obtained before any person can construct and operate a stationary source in the District of Columbia. The Permittee's application to operate the listed diesel emergency generators located in Washington, DC, has been reviewed:

Equipment Location	Address	Equipment Size	Model Number	Serial Number	Permit Number
McMillan WTP	2500 1 st St. NW Washington, DC 20001	600 kW (1135hp)	KTA38-G1 Cummins	95981-01	6261-R1
McMillan WTP	2500 1 st St. NW Washington, DC 20001	600 kW (1135hp)	KTA38-G1 Cummins	95981-03	6262-R1
McMillan WTP	2500 1 st St. NW Washington, DC 20001	600 kW (1135hp)	KTA38-G1 Cummins	95981-02	6263-R1

Based on the submitted plans and specifications as detailed in the applications received on December 26, 2012, your applications are hereby approved subject to the following conditions:

Washington Aqueduct, U.S. Army Corps of Engineers
Permits (#6261-R1, #6262-R1 and #6263-R1) to Operate Emergency Generators

June 20, 2013

Page 2

I. General Requirements:

- a. The emergency generators shall be operated in accordance with the air pollution control requirements of 20 DCMR.
- b. This set of permits expires on June 19, 2018 [20 DCMR 200.4]. If continued operation after this date is desired, the owner or operator shall submit an application for renewal by March 19, 2018.
- c. Operation of equipment under the authority of this set of permits 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 set of permits shall be kept on the premises and produced upon request.
- f. Failure to comply with the provisions of this set of permits 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 the generators, 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

Washington Aqueduct, U.S. Army Corps of Engineers
Permits (#6261-R1, #6262-R1 and #6263-R1) to Operate Emergency Generators

June 20, 2013

Page 3

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 generators shall not be operated in excess of 500 hours in any given 12 month period. If operation beyond 500 hours is desired, the owner or operator 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.
- b. With the exceptions specified in Condition III(c), the emergency generators shall be operated only during emergencies as follows:
 1. An electrical power outage 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.);
 2. When there is a substantial deviation of voltage or frequency from the electrical provider to the premises such that the equipment being supported cannot be safely or effectively operated; or
 3. When a sudden, unexpected event occurs that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. An emergency includes operations necessitated by non-routine failures of equipment, but it does not include voluntary demand reductions covered by Condition III (f).
- c. The emergency generators may be operated for the purpose of maintenance checks and readiness testing for a period not to exceed one hundred (100) hours per year. Any such operation shall be considered as part of the 500 hours allowed under Condition III (a) above. [20 DCMR 201]
- d. The emergency generators shall fire only diesel fuel which contains a maximum sulfur content of 15 ppm (0.0015 percent by weight) and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [20 DCMR201]
- e. The emergency generators shall be operated and maintained in accordance with the recommendations of the equipment manufacturer or to industry standards for similar models if manufacturer specifications are unavailable. [20 DCMR201]
- f. The emergency generators 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.

Washington Aqueduct, U.S. Army Corps of Engineers
Permits (#6261-R1, #6262-R1 and #6263-R1) to Operate Emergency Generators

June 20, 2013

Page 4

- g. At all times, including periods of startup, shutdown, and malfunction, the owner shall maintain and operate the emergency generator in a manner consistent with safety and good air pollution control practices for minimizing emissions Department which may include, but is not limited to, monitoring results, opacity observations, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [20 DCMR 201]

IV. Monitoring and Testing Requirements:

- a. The owner or operator shall monitor the date, time, duration, and reason for each emergency generator startup.
- b. In order to ensure compliance with Condition III (a), the owner or operator shall monitor the total hours of operation of each generator each month with the use of a properly functioning, non-resettable hour metering device or by tracking the sum of the duration of each instance of operation each month.
- c. The owner or operator shall test fuel oil as necessary to show compliance with Conditions III (d) and V(c) in accordance with appropriate ASTM methods. [20 DCMR 502.6]
- d. The owner or operator 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:

- a. The following information shall be recorded, initialed, and maintained in a log at the facility for a period not less than three (3) years [20 DCMR 500.8]:
 1. The date, time, duration, and reason for each start-up of each emergency generator;
 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;
 3. Records of the maintenance performed on the unit;
 4. Records of the results of any visible emissions monitoring performed;
 5. Records of the occurrence and duration of each malfunction of operation; and
 6. 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.

Washington Aqueduct, U.S. Army Corps of Engineers
Permits (#6261-R1, #6262-R1 and #6263-R1) to Operate Emergency Generators

June 20, 2013

Page 5

- b. The owner or operator shall maintain a copy of the emergency generator's manufacturer's maintenance and operating recommendations at the facility. If such documentation is unavailable, the owner or operator shall maintain documentation of the industry standards to which the unit is being maintained.
- c. For each delivery of diesel fuel, the owner or operator 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:
 - A. The fuel oil type;
 - B. The concentration or weight percent of sulfur in the fuel;
 - C. The date and time the sample was taken;
 - D. The name, address, and telephone number of the laboratory that analyzed the sample; and
 - E. The test method used to determine the sulfur content.

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