

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

March 27, 2020

Mr. John Michael Bixler
Deputy Director of Facilities Management
Smithsonian Institution
National Museum of Natural History
1000 Constitution Ave. NW, MRC 132
Washington, DC 20004

Subject: **Draft Title V Operating Permit Significant Permit Modification (Permit No. 024-R2-A1)**

Dear Mr. Bixler:

The Air Quality Division (AQD) of the District of Columbia Department of Energy and Environment (the Department) has prepared a Draft Title V operating permit pursuant to Chapters 2 and 3 of Title 20 of the District of Columbia Municipal Regulations (20 DCMR 200 and 300) to address your significant permit modification request dated October 9, 2018 (with cover letter dated October 12, 2018). This permit modification, satisfying applicable regulations, is enclosed. Note that this permit, when issued, will be issued pursuant to the Department's authority under both Chapter 2 and Chapter 3, as mentioned above. This permit modification only: 1) revises the equipment list at the beginning of Condition III, 2) revises Condition III(c) to remove the police station generator set, and 3) adds Condition III(h) to add a replacement generator set. No other conditions have been revised or updated, including the expiration date, which will remain the same as that established in Permit No. 024-R2 issued on May 3, 2017 (expiration May 2, 2022).

As the responsible official for the equipment covered by this permit at the Smithsonian Institution, National Zoological Park, it will be your responsibility to review, understand, and abide by all of the terms and conditions of the attached and to ensure that any person who operates any emission unit subject to the attached permit does the same.

This draft permit is subject to a 30-day public comment period beginning March 27, 2020 and concluding on April 27, 2020. The Smithsonian Institution, affected states (Maryland, Virginia, and West Virginia), the U.S. Environmental Protection Agency (EPA), and the general public may comment on the draft permit during this review period. Upon closing of this review period the permit may be modified to address comments received during this period. If no substantive comments are received during the public review period of the draft permit, the permit will continue with an EPA-only review period ending 45 days after the public review period began. If substantive comments are received, they will be addressed and the permit will then be issued as a proposed permit for EPA review only for a period of 45 days.

If EPA does not object to the issuance of the permit during their 45-day review period, the permit will be issued as a final permit and will become fully enforceable. If EPA raises objections

Smithsonian Institution, National Zoological Park

Draft Title V Operating Permit No. 024-R2-A1

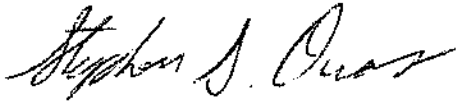
March 27, 2020

Page 2

during this period, the objections will be addressed as necessary by issuance of a modified draft permit.

If you have questions or comments or need further information, please write to this office or contact Olivia Achuko at (202) 535-2997 or olivia.achuko@dc.gov. If you submit comments by email, please copy me at stephen.ours@dc.gov.

Sincerely,



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

Attachment: 1

cc: Joseph Cusick, *Building Manager, National Zoological Park* <via e-mail>
Andy Nishida, *AECOM* <via email>

08437

**District of Columbia
Air Quality Operating Permit**

National Zoological Park
3001 Connecticut Ave., NW
Washington, DC 20008

**Draft Title V Operating Permit
Chapter 3 Permit No. 024-R2-A1**

ICIS-Air Facility ID: DC0000001100100136

**Department of Energy and Environment
Air Quality Division**

Effective Date: TBD Expiration Date: May 2, 2022

GOVERNMENT OF THE DISTRICT OF COLUMBIA

Department of Energy and Environment

Chapter 3 Permit No. 024-R2-A1

Effective Date: TBD

ICIS-Air Facility ID: DC0000001100100136

Expiration Date: May 2, 2022

Pursuant to the requirements of Chapter 2, General and Non-Attainment Permits, and Chapter 3, Operating Permits, of Title 20 of the District of Columbia Municipal Regulation (20 DCMR), the District of Columbia Department of Energy and Environment, Air Quality Division hereafter referred to as "the District" or "the Department" as the duly delegated agency, hereby grants approval to operate the emission units listed in Sections III and IV of this permit subject to the terms and conditions of this permit. All terms and conditions of this permit are enforceable by the District and by the U.S. Environmental Protection Agency (EPA) unless specifically designated as enforceable by the District only, as annotated by "***".

SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, approval to operate is granted to:

Permittee

Smithsonian Institution
National Museum of Natural History
1000 Constitution Avenue NW, MRC 132
Washington, DC 20004

Facility Location

National Zoological Park
3001 Connecticut Ave. NW
Washington, DC 20008

Responsible Official: Mr. John Michael Bixler, Deputy Director of Facilities Management

PREPARED BY:

N. Olivia Achuko
Environmental Engineer
Air Quality Division
(202) 535-2997

Date

AUTHORIZED BY:

Stephen S. Ours, P.E.
Chief, Permitting Branch
Air Quality Division
(202) 535-1747

Date

Table of Contents

I. General Permit Requirements	4
a. Compliance	4
b. Permit Availability	5
c. Record Keeping	5
d. Reporting Requirements	7
e. Certification Requirements	14
f. Fees	14
g. Duty to Provide Supplemental Information	15
h. Construction, Installation, or Alteration	15
i. Permit Renewal, Expiration, Reopening, Revision, and Revocation	15
j. Permit and Application Consultation	18
k. Section 502(b)(10) Changes	18
l. Off-Permit Changes	20
m. Economic Incentives	20
n. Emissions Trading and Averaging	20
o. Entry and Inspection	21
p. Enforcement	21
q. Property Rights	22
r. Severability	22
s. Alternative Operating Scenarios	22
II. Facility-Wide Permit Requirements	22
a. General Maintenance and Operations	22
b. Visible Emissions	22
c. Control of Fugitive Dust	23
d. Open Fires	25
e. Asbestos	25
f. Fuel Oil Sulfur Content	25
g. Onroad Engine Idling and Nonroad Diesel Engine Idling	29
h. Fleet Maintenance	30
i. Lead in Gasoline	30
j. Odors and Nuisance Air Pollutants	31
k. Risk Management	31
l. Protection of Stratospheric Ozone	31
m. Architectural and Maintenance Coatings	32
n. General Conformity	34
III. Emission Unit Specific Requirements	35
a. Emission Units: CU-1, CU-2, and CU-3 (Boilers)	37
b. Emission Units: New Source Performance Standards (NSPS)	

Spark Ignition Internal Combustion Engine (SI-ICE) Powered Emergency Generator Sets	43
c. Emission Units: Non-NSPS SI-ICE Powered Emergency Generators Sets	49
d. Emission Units: Non-NSPS Compression Ignition Internal Combustion Engine (CI-ICE) Powered Emergency Generator Sets	54
e. Emission Unit SPB-1: Paint Spray Booth	59
f. Emission Unit SC-1: Sawdust Collector for Woodworking Operations	64
g. Emission Units T-18 and MG-1: Gasoline Storage Tank (3,000 gallon capacity) and Associated Dispensing Equipment	67
h. Emission Unit EU-23: NSPS Compression Ignition Internal Combustion Engine (CI-ICE) Powered Emergency Generator Set	69
IV. Miscellaneous/Insignificant Activities	73
V. Permit Shield	77
VI. Compliance Schedule	77

I. General Permit Requirements

a. Compliance

1. The Permittee shall comply with all the terms and conditions of this permit. Any non-compliance with this permit constitutes a violation of the federal Clean Air Act and/or District regulations and is grounds for enforcement action, permit revocation, permit modification or denial of permit renewal. [20 DCMR 302.1(g)(1)]
2. In any enforcement action, the Permittee cannot claim as a defense that it would have been necessary to halt or reduce a permitted activity in order to maintain compliance with this permit. [20 DCMR 302.1(g)(2)]
3. To demonstrate compliance, the Permittee must submit an Annual Certification Report to the Department not later than March 1 each year certifying compliance with all permit conditions. See Section I(d)(2) of this permit. [20 DCMR 302.3(e)(1)]
4. Nothing in this permit shall be interpreted to preclude the use of any credible evidence to demonstrate compliance or non-compliance with any term or condition of this permit. [40 CFR 51.212, 52.12, 52.30, 60.11, and 61.12]
5. In the event of an emergency, as defined by 20 DCMR 399.1, noncompliance with the limits contained in this permit shall be subject to the following provisions [20 DCMR 302.7]:
 - A. An emergency constitutes an affirmative defense to an action brought for noncompliance with the technology-based emission limitations of this permit if the conditions of Condition I(a)(5)(B) are met.
 - B. The affirmative defense of an emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
 - ii. The permitted stationary source was at the time being properly operated;
 - iii. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of this permit; and
 - iv. The Permittee submitted notice of the emergency to the Department within two (2) working days of the time when emission limitations were exceeded due to the emergency. The notice shall contain description of the emergency,

any steps taken to mitigate emissions, and corrective actions taken pursuant to 20 DCMR 302.1(c)(3)(C)(i).

- C. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof; and
 - D. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
6. In addition to any specific testing requirements specified elsewhere in this permit, the Department reserves the right to require that the Permittee perform additional emission tests using methods approved in advance by the Department. [20 DCMR 502.1]

b. Permit Availability

A copy of this permit shall be available at the permitted facility at all times. A copy of this permit shall be provided to the Department upon request. [20 DCMR 101.1]

c. Record Keeping

- 1. Where applicable to the monitoring, reporting, or testing requirements of this permit, the Permittee shall keep the following records [20 DCMR 302.1(c)(2)(A)(i-vi)]:
 - A. The date, place as defined in the permit, and time of sampling or measurements;
 - B. The date(s) analyses were performed;
 - C. The company or entity that performed the analyses;
 - D. The analytical techniques or methods used;
 - E. The results of the analyses; and
 - F. The operating conditions, as existing at the time of sampling or measurement.
- 2. The Permittee must keep and maintain records of all testing results, monitoring information, records, reports, and applications required by this permit for a period of at least five (5) years from the date of such test, monitoring, sample measurement, report or application. [20 DCMR 302.1(c)(2)(B)]
- 3. The Permittee must keep and maintain, in a permanently bound log book or another format approved in writing by the Department, records of all combustion process adjustments. Such records shall include the following [20 DCMR 805.8(c)]:

- A. The date on which the combustion process was last adjusted;
 - B. The name, title, affiliation of the person who made the adjustment;
 - C. The NO_x emission rate, in parts per million by volume, dry basis (ppmvd), after the adjustments were made;
 - D. The CO emission rate, in ppmvd, after the adjustments were made;
 - E. The CO₂ concentration, in percent (%) by volume dry basis, after the adjustments were made;
 - F. The O₂ concentration, in percent (%) by volume dry basis, after the adjustments were made; and
 - G. Any other information that the Department may require.
4. Unless more specific requirements are included in Condition III or Condition IV of this permit for a specific operation, for surface painting operations, printing operations, and photograph processing operations, etc., as applicable, the Permittee shall maintain the following records [20 DCMR 500.1]:
- A. The names of the chemical compounds contained in the solvents, reagents, coatings, and other substances used in these activities;
 - B. The volatile organic compound (VOC) content, measured in weight percent, of solvents used in these activities,
 - C. The quantity of solvents (not including those that are subject to Condition II(m) of this permit) used in pounds per hour, and
 - D. The number of hours that solvents were applied each day (exclusive of uses subject to Condition II(m) of this permit).
5. If Section 502(b)(10) changes are made pursuant to Condition I(k) of this permit, the Permittee shall maintain a copy of the notice with the permit. [20 DCMR 302.8(a)]
6. If off-permit changes are made pursuant to Condition I(l) of this permit, the Permittee shall keep a record of all such changes that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. [20 DCMR 302.9(d)]

d. Reporting Requirements

1. Semi-Annual Report: The Permittee shall submit semi-annual reports to the Department by March 1 and September 1 of each year. The September 1 report shall cover January 1 through June 30 of that year; the March 1 report shall cover July 1 through December 31 of the previous year. These reports shall contain the following information [20 DCMR 302.1(c)(3)(A)&(B)]:
 - A. Fuel use records in the format required by the unit-specific requirements of this permit;
 - B. All Method 9 visible emissions (opacity) observation results as well as the results of any non-Method 9 monitoring identifying visible emissions, per the unit-specific requirements of this permit;
 - C. The results of any other required monitoring referencing this section; and
 - D. A description of any deviation from permit requirements during the period covered by the report.
2. Annual Certification Report: By March 1 of each year, the Permittee shall submit to the Department and EPA an Annual Certification Report certifying compliance with the terms and conditions of this permit. The report shall cover the period from January 1 through December 31 of the previous year. [20 DCMR 302.1(c)(3) and 302.3(e)(1)]
 - A. The report shall [20 DCMR 302.3(e)(3)]:
 - i. Identify each term or condition of the permit that is the basis for certification;
 - ii. State the Permittee's current compliance status;
 - iii. Describe the testing, monitoring, and record keeping methods used to determine compliance with each emission limit, standard or other requirement over the reporting period; and
 - iv. State whether compliance has been continuous or intermittent during the reporting period for each emission limit, standard or other requirement as shown by these testing, monitoring, and record keeping methods.
 - B. The report shall include the following information for all fuel burning equipment and stationary internal combustion engines/generators.

- i. Fuel Usage: The total amount of each type and grade of fuel burned during the reporting period shall be reported for each emission unit and for each group of emission units identified as a miscellaneous activity in this permit. Natural gas use shall be reported in therms (where one therm equals 100 cubic feet); fuel oil use shall be reported in gallons. The Permittee shall submit this information in a form approved by the Department. [20 DCMR 500.1]
- ii. Quality of Fuel Information:
 1. For commercial fuel oil, as defined at 20 DCMR 899, the Permittee shall submit copies of all records obtained pursuant to Condition II(f)(9) of this permit during the reporting period.
 2. For all other fuel oils and diesel, unless more specific testing is specified elsewhere in this permit for a given emission unit, the Permittee shall sample and test the fuel oil burned in its fuel burning equipment and stationary internal combustion engines/generators, using the ASTM methods specified in Condition II(f)(8), at least once each calendar quarter that fuel is fired in the units or at the time of each fuel delivery, whichever is less frequent, and shall report these data with the Annual Certification Report. For each sample, the Permittee must provide [20 DCMR 502]:
 - a. The fuel oil grade and the ASTM method used to determine the grade;
 - b. The weight percent sulfur of the fuel oil;
 - 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 type of test or test method performed.

In lieu of sampling and testing fuel oil each quarter for each of these data, the Permittee may comply with the requirements of Condition II(f)(9) of this permit for these fuels as well. If this option is chosen, the Permittee shall submit copies of all records obtained pursuant to these requirements during the reporting period.

If any of these data cannot be obtained from the fuel supplier, it is the responsibility of the Permittee to sample the fuel and have it analyzed to obtain the required data.

iii. Boiler and Engine Adjustment Data: For all boiler and engine adjustments required pursuant to the conditions of this permit, the Annual Certification Report shall include sufficient data to substantiate that each boiler and engine has been adjusted in accordance with 20 DCMR 805.8(a), (b), and (c) and any other related requirements specified in this permit. [20 DCMR 500.1]

iv. Visible Emissions Test Data: For all EPA Reference Method 9 (40 CFR 60, Appendix A) testing required by this permit, the Annual Certification Report shall include:

1. The date and time of each test;
2. The name, address, and telephone number of the tester;
3. Proof of the certification of the tester pursuant to Reference Method 9;
4. Identification of the emission unit(s) being observed during the test;
5. The operation rate of the unit being tested, as applicable, as follows:
Note that if any of these data are estimated, a description of the estimation technique must also be included.
 - a. The boiler load expressed in pounds of steam per hour (where possible) and the percent of rated capacity at which the boiler was operated during the test; or
 - b. The percent of rated capacity at which the engine or other equipment was operated during the test;
6. The amount and type of fuel fired during the test; and
7. Data from a minimum of 30 minutes of visible emissions observations.

Unless otherwise specified in this permit, the Permittee shall fire the fuel expected to have the greatest likelihood to result in visible emissions among the fuels permitted to be used in the unit, unless that fuel has not and will not be used during the reporting period. If the only use of a given fuel in the reporting period is for purposes of periodic testing or combustion adjustment required by this permit, no visible emission test for that fuel will be required under this condition. [20 DCMR 502]

C. As a supplement to the Annual Certification Report submitted to the Department, the Permittee shall submit, in duplicate, a report of the emissions from the facility during the previous calendar year. The emissions shall be reported on a per

emission unit basis (though miscellaneous/insignificant sources and area sources may be grouped in a reasonable manner). If multiple fuels are used in fuel-burning equipment, the emissions shall also be reported on a per fuel basis for each emission unit. In addition, a summary table shall be provided showing total emissions from all units at the site. This emissions supplement shall include [20 DCMR 500.1]:

- i. Emissions of the following pollutants on a per fuel, per emission unit, and sum total basis as described above:
 1. Oxides of nitrogen (NO_x);
 2. Sulfur dioxide (SO_2);
 3. Carbon monoxide (CO);
 4. Volatile organic compounds (VOCs);
 5. Lead (Pb) and lead compounds, as defined in 40 CFR 50.12;
 6. Ammonia (NH_3);
 7. Particulate matter in each of the following categories:
 - a. Total particulate matter (total filterable plus condensable),
 - b. Total particulate matter less than 10 microns in aerodynamic diameter (PM10, also known as PM10-PRI), equivalent to PM10-FIL plus PM-CON,
 - c. Condensable particulate matter (PM-CON),
 - d. Filterable particulate matter less than 10 microns in aerodynamic diameter (PM10-FIL),
 - e. Total particulate matter less than 2.5 microns in aerodynamic diameter (PM2.5, also known as PM2.5-PRI), equivalent to PM2.5-FIL plus PM-CON, and
 - f. Filterable particulate matter less than 2.5 microns in aerodynamic diameter (PM2.5-FIL); and
 8. All hazardous air pollutants (HAPs) as defined in §112(b) of the Clean Air Act, as revised.

- ii. Calculations and justification for each emission value reported in the summary table. The emissions reported shall be based on the best reasonably available method for estimating emissions. In general, the following list is the hierarchy of most accurate to least accurate methods:

- 1. Continuous emission monitoring data,
- 2. Emissions data calculated based on emissions test data used with process operational/formulation data,
- 3. Emissions data calculated based on manufacturer's specifications used with process operational/formulation data, and finally,
- 4. AP-42 or other general emission factors used with process operational/formulation data.

If questions arise as to the most accurate emissions estimation method, the Permittee is encouraged to consult the Department.

- iii. In addition to the summary table of total emissions during the calendar year, the Permittee shall submit the following:

- 1. An estimate of the average emissions of NO_x during a typical work weekday between May 1 and September 30 (ozone season) from each emission unit (except miscellaneous/insignificant sources);
- 2. An estimate of the average emissions of VOCs during a typical work weekday between May 1 and September 30 (ozone season) from each emission unit, with the exception of miscellaneous/insignificant sources.
- 3. An estimate of the average CO emissions during a typical winter work weekday (where "winter" is defined as January, February, and December of the same calendar year); and
- 4. Any additional information the Department may request in order to collect necessary information to comply the requirements of 40 CFR 51.

- 3. Progress Reports: If the Permittee is subject to the requirements of a compliance schedule, it shall submit the reports specified in 20 DCMR 302.3(d). These reports shall include:

- A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

- B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
4. Notifications and Supplemental Reports: Unless specifically exempted from these requirements elsewhere in this permit, the Permittee shall submit the following notifications and supplemental reports. Notifications or reports of a deviation from a permit condition submitted pursuant to paragraphs A, B, or C below shall contain the following information: the date of the deviation, the time of the deviation, the emission unit involved, the duration and cause of the deviation, and what actions the Permittee took to correct or prevent the deviation. [20 DCMR 302.1(c)(3)(C)]
- A. Emergencies: If the Permittee experiences an emergency, as defined in 20 DCMR 399.1, which results in the breach of a permit condition or exceedance of an emission limit, the Permittee shall submit a written notice to the Department within two (2) working days of the date the Permittee first becomes aware of the deviation if the Permittee wishes to assert an affirmative defense authorized under 20 DCMR 302.7. In addition, if the conditions of 20 DCMR 302.7(b) are not followed, the Permittee cannot assert the existence of an emergency as an affirmative defense to an action brought for non-compliance with a technology-based limitation. [20 DCMR 302.1(c)(3)(C)(i)]
- B. Threat to Public Health, Safety, and the Environment: The Permittee shall immediately report 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)] This shall be reported to the Department's Emergency Operations number at (202) 645-5665.
- C. Emission Exceedance: The Permittee shall immediately notify the Air Quality Division by telephone via the Department's Emergency Operations number at (202) 645-5665, of any exceedance of any emission limit or any limit established as a surrogate for emissions. Additionally, the Permittee shall submit a written notice of such exceedance within two working days of discovery. [20 DCMR 500.1]
- D. Operational Flexibility: Prior to making a change as provided for in Condition I(k) of this permit, titled "Section 502(b)(10) Changes" the Permittee shall give written notice to the Department and EPA at least seven calendar days before the change is to be made. The seven (7) calendar day period may be shortened or eliminated for an operational change that must be implemented more quickly to address unanticipated conditions that pose a significant health, safety, or environmental hazard. If less than a seven calendar day notice is given, the Permittee shall provide notice to the Department and EPA as soon as possible after learning of the need to make the change. In the notice, the Permittee must

substantiate why seven-day advance notice could not be given. Written notices must include the following information [20 DCMR 302.8]:

- i. A description of the change to be made;
- ii. The date on which the change will occur;
- iii. Any changes in emissions; and
- iv. Any permit terms and conditions that are affected, including those that are no longer applicable.

E. Off-Permit Changes: The Permittee shall provide contemporaneous written notice of off-permit changes, made in accordance with Condition I(1) of this permit, to the Department and EPA. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change. [20 DCMR 302.9(b)]

F. Periodic Maintenance of Pollution Control Equipment: Whenever it is necessary to shut down air pollution control equipment for periodic maintenance, the Permittee shall report the planned shutdown to the Department at least forty-eight hours prior to shutdown. The prior notice shall include, but not be limited to, the following [20 DCMR 107.2]:

- i. Identification of the specific facility to be taken out of service as well as its location and permit number;
- ii. The expected length of time that the air pollution control equipment will be out of service;
- iii. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
- iv. Measures that will be taken to minimize the length of shutdown period; and
- v. The reasons that it would be impossible or impractical to shutdown the source operation during the maintenance period.

- 5. All notifications, reports, and other documentation required by this permit shall be certified by a responsible official. [20 DCMR 302.1(c)(3)(D)]
- 6. Nothing in this permit shall relieve the Permittee from any reporting requirements under federal or District of Columbia regulations.

7. Within 15 days of receipt of a written request, the Permittee shall furnish to the Department any information the Department 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 Department with copies of records required to be kept by the permit. [20 DCMR 302.1(g)(5)]
8. The Permittee may request confidential treatment of information submitted in any report required by this permit pursuant to the limitations and procedures in 20 DCMR 301.1(c). [20 DCMR 302.1(c)(3)(E) and 20 DCMR 106]
9. Annual Certification Reports, Semi-Annual Reports, notifications, supplemental reports, and other documentation required by this permit shall be sent to [20 DCMR 302.3(e)(4)]:

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

10. Annual Certification Reports must be submitted to EPA Region 3 in electronic form at the following email address. [20 DCMR 302.3(e)(4)]:

R3_APD_Permits@epa.gov

e. Certification Requirements

Any document including all application forms, reports, and compliance certifications submitted to the Department pursuant to this permit shall contain a signed certification by a responsible official, as defined in 20 DCMR 399.1, with the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [20 DCMR 301.4]

f. Fees

Permittee shall pay fees equal to the amount calculated by methods consistent with 20 DCMR 305. The fees shall be paid annually no later than 60 days after the Department issues an invoice or September 1 of each year, whichever comes first, beginning in 2017. The check for the fees shall be made payable to the "D.C. Treasurer" and mailed to [20 DCMR 302.1(h)]:

Chief, Compliance and Enforcement Branch
Department of Energy and Environment
Air Quality Division

1200 First Street NE, 5th Floor
Washington, DC 20002

g. Duty to Provide Supplemental Information

1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application or other submittal, the Permittee shall promptly submit to the Department the relevant supplementary facts and corrected information. [20 DCMR 301.2]
2. The Permittee shall promptly submit to the Department the information necessary to address any requirement that becomes applicable to the Permittee after the date the Permittee submitted any permit application. [20 DCMR 301.2]
3. Upon receipt of a written request, the Permittee shall furnish to the Department, within a reasonable time established by the Department:
 - A. Any information that the Department determines is reasonably necessary to evaluate or take final action on a permit application; [20 DCMR 301.1(b)(5)]
 - B. Any information the Department requests to determine whether cause exists to reopen, revise, terminate, or revoke this permit, or to determine compliance with the terms and conditions of this permit [20 DCMR 302.1(g)(5)]; and
 - C. Copies of any record(s) required to be kept by this permit. [20 DCMR 302.1(g)(5)]

h. Construction, Installation, or Alteration

1. The Permittee shall not initiate construction, installation, or modification of any equipment or facility which emits or controls air pollutants prior to obtaining a construction permit from the Department in accordance with 20 DCMR 200.
2. When construction, installation, or alteration has been performed, the Permittee shall take all actions required by 20 DCMR 300 to obtain a revision of the Title V operating permit to reflect the new or modified equipment.

i. Permit Renewal, Expiration, Reopening, Revision, and Revocation

1. This permit expires five (5) years after its effective date [20 DCMR 302.1 (b)], but may be renewed before it expires pursuant to 20 DCMR 303.
 - A. The Permittee shall file an application for renewal of this permit at least six (6) months before the date of permit expiration. [20 DCMR 301.1(a)(4)] Compliance

with this requirement may be waived if the Permittee has submitted a request for permit termination by this deadline.

- B. The Permittee's right to operate ceases on the expiration date unless a complete permit renewal application has been submitted to the Department not later than six (6) months prior to the expiration date or the Department has taken final action approving the source's application for renewal by the expiration date. [20 DCMR 301.1(a)(4) and 303.3(b)].
 - C. If a timely and complete application for renewal of this permit is submitted to the Department, but the Department, through no fault of the Permittee, fails to take final action to issue or deny the renewal permit before the end of the term of this permit, then this permit shall not expire until the renewal permit has been issued or denied. [20 DCMR 303.3(c)]
 - D. An application for renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. The Department may similarly, in issuing a draft renewal permit or proposed renewal permit, specify only those portions that will be revised, supplemented, or deleted, incorporating the remaining permit terms by reference. [20 DCMR 303.1(a) and 303.3(a)]
- 2. This permit may be amended at any time in accordance with the requirements of 20 DCMR 303.4 or 303.5, as applicable.
 - 3. This permit shall be reopened for cause if any of the following occur [20 DCMR 303.6(a)]:
 - A. The Department or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms of the permit;
 - B. Additional applicable requirements under the Clean Air Act become applicable to the facility; provided, that reopening on this ground is not required if the following occurs:
 - i. The facility is not a major source;
 - ii. The permit has a remaining term of less than three (3) years;
 - iii. The effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 20 DCMR 303.3(c); or

- iv. The additional applicable requirements are implemented in a general permit that is applicable to the facility and the facility receives approval for coverage under that general permit;
 - C. Additional requirements (including excess emissions requirements) become applicable to a source under the Acid Rain program; provided, that upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
 - D. The Department or EPA determines that the permit must be revised to assure compliance by the source with applicable requirements.
4. While a reopening proceeding is pending, the Permittee shall be entitled to the continued protection of any permit shield provided in this permit pending issuance of a modified permit unless the Department specifically suspends the shield on the basis of a finding that the suspension is necessary to implement applicable requirements. If such a finding applies only to certain applicable requirements or to certain permit terms, the suspension shall extend only to those requirements or terms. [20 DCMR 303.6(d)]
5. This permit may be reopened for modifications or revoked for cause by EPA in accordance with 20 DCMR 303.7.
6. The Department may terminate a permit in accordance with 20 DCMR 303.8 at the request of the Permittee or revoke it for cause. Cause for revocation exists if the following occurs [20 DCMR 303.8(a)]:
- A. The permitted stationary source is in violation of any term or condition of the permit and the Permittee has not undertaken appropriate action (such as a schedule of compliance) to resolve the violation;
 - B. The Permittee has failed to disclose material facts relevant to issuance of the permit or has knowingly submitted false or misleading information to the Department;
 - C. The Department finds that the permitted stationary source or activity substantially endangers public health, safety, or the environment, and that the danger cannot be removed by a modification of the terms of the permit;
 - D. The Permittee has failed to pay permit fees required under 20 DCMR 305 and Section I(f) of this permit; or
 - E. The Permittee has failed to pay a civil or criminal penalty imposed for violations of the permit.

7. The Permittee may at any time apply for termination of all or a portion of this permit relating solely to operations, activities, and emissions that have been permanently discontinued at the permitted stationary source. An application for termination shall identify with specificity the permit or permit terms that relate to the discontinued operations, activities, and emissions. In terminating all or portions of this permit pursuant to this condition, the Department may make appropriate orders for the submission of a final report or other information from the Permittee to verify the complete discontinuation of the relevant operations, activities, and emissions. [20 DCMR 303.8(d)]
8. The Permittee may apply for termination of this permit on the ground that its operations, activities, and emissions are fully covered by a general permit for which it has applied for and received coverage pursuant to 20 DCMR 302.4. [20 DCMR 303.8(e)]
9. Except as provided under 20 DCMR 303.5(b) for minor permit modifications, the filing of a permit reopening, revocation or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [20 DCMR 302.1(g)(3)]

j. Permit and Application Consultation

The Permittee is encouraged to consult with Department personnel at any time concerning the construction, operation, modification or expansion of any facility or equipment; the operation of required pollution control devices or systems; the efficiency of air pollution control devices or systems; applicable requirements; or any other air pollution problem associated with the installation.

k. Section 502(b)(10) Changes

Under the following conditions, the Permittee is expressly authorized to make Clean Air Act ("the Act") Section 502(b)(10) changes without a permit amendment or permit modification provided that such a change is not a modification under any provision of Title I of the Act, does not include any changes in the date(s) included in any compliance schedule, and does not result in a level of emissions exceeding the emissions allowed under the permit, whether expressed herein as a rate of emissions or in terms of total emissions: [20 DCMR 302.8]

1. Before making a change under this provision, the Permittee shall provide advance written notice to the Department and to the Administrator, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected including those which are no longer applicable. The Permittee shall thereafter maintain a copy of the notice with the permit, and the Department shall place a copy with the permit in the public file. The

written notice shall be provided to the Department and the Administrator at least seven (7) days before the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to the unanticipated conditions, the Permittee shall provide notice to the Department and the Administrator immediately upon learning of the need to make the change;

2. A permitted source may rely on the authority of this section to trade increases and decreases in emissions within the stationary source, where the applicable requirements provide for the emissions trades without a permit revision. In such a case, the advance written notice provided by the Permittee shall identify the underlying authority authorizing the trading and shall state when the change will occur, the types and quantities of emissions to be traded, the permit terms or other applicable requirements with which the source will comply through emissions trading, and any other information as may be required by the applicable requirement authorizing the emissions trade;
3. Any permit shield provided under Condition V of this permit pursuant to 20 DCMR 302.6 shall not apply to changes made under this section, except those provided for in Condition I(k)(4) of this permit; however, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the changes; provided, that the Permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The shield may be reinstated for emissions and operations affected by the change:
 - A. If subsequent changes cause the stationary source's operations and emissions to revert to those contained in the permit and the Permittee resumes compliance with the terms and conditions of the permit; or
 - B. If the Permittee obtains a significant modification to the permit pursuant to Condition I(i) of this permit to codify the change in the permit, and the modified permit expressly provides protection under the shield for the change; and
4. Upon the request of the Permittee, the Department shall issue a permit that contains terms and conditions allowing for the trading of emissions increases and decreases in the permitted stationary source solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements. The Permittee shall include in its application proposed replicable procedures and permit terms that assure that the emissions trades are quantifiable and enforceable and comply with all applicable requirements and 20 DCMR Sections 302.1 and 302.3. The permit shield under Condition V of this permit shall apply to permit terms and conditions authorizing such increases and decreases in

emissions. Under this paragraph, the written notification required under this section shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

l. Off-Permit Changes

The Permittee may make any change in its operations or emissions not addressed or prohibited in this permit without obtaining an amendment or modification of this permit subject to the following requirements and restrictions [20 DCMR 302.9]:

1. The change shall meet all applicable requirements and may not violate any existing permit term or condition;
2. The Permittee shall provide contemporaneous written notice of the change to the Department and the Administrator. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change;
3. The change shall not qualify for any permit shield found in Condition V of this permit;
4. The Permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
5. The Permittee may not make, without a revision of its permit, a change that is not addressed or prohibited by its permit if such change is subject to any requirements under Title IV of the Act or is a modification under any provision of Title I of the Act.

m. Economic Incentives

This permit shall require no revision under any approved economic incentives, marketable permits, emissions trading, or other similar programs or processes for changes that are provided for in this permit. [20 DCMR 302.1(i)]

n. Emissions Trading and Averaging

There are no applicable emissions trading or averaging applicable at this facility, unless otherwise specified in this permit. [20 DCMR 302.1(k)]

o. Entry and Inspection

The Permittee shall allow authorized officials of the District, upon presentation of identification, to [20 DCMR 302.3(b) and 20 DCMR 101] *Note: This is a streamlined condition. The requirements of 20 DCMR 302.3(b) are more stringent than those of 20 DCMR 101, thus this permit only incorporates the conditions of 20 DCMR 302.3(b). Compliance with these conditions will be considered compliance with both regulations.:*

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.

p. Enforcement

1. Failure to comply with the federally enforceable terms and conditions of this permit constitutes a violation of the federal Clean Air Act. The District, EPA, and/or citizens may enforce federally enforceable permit terms and conditions. [20 DCMR 302.2(a) and 20 DCMR 302.1(g)(1)]
2. Failure to comply with the terms and conditions of this permit designated as a District-only requirement constitutes a violation of the District of Columbia air quality laws and regulations. The Department will enforce these permit terms and conditions. [20 DCMR Chapter 1]
3. Failure to comply with permit terms and conditions is grounds for enforcement action, permit revocation, or for denial of a permit renewal application [20 DCMR 302.1(g)(1)]; and/or administrative, civil, or criminal enforcement action. [20 DCMR 105]
4. In any enforcement proceeding, the Permittee shall have the burden of proof when seeking to establish the existence of an emergency. [20 DCMR 302.7(c)]
5. This permit may be amended, reopened, modified, revoked, or reissued for cause in accordance with 20 DCMR 303 and Condition I(i) of this permit. Except as provided

under 20 DCMR 303.5, the filing by the Permittee of a request for a permit revision, termination, or notification of planned changes or anticipated noncompliance, does not stay any term or condition of this permit. [20 DCMR 302.1(g)(3)]

q. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege to the Permittee. [20 DCMR 302.1(g)(4)]

r. Severability

The provisions of this permit are severable. If any part of this permit is held invalid, the remainder of this permit shall not be affected thereby and shall remain valid and in effect. [20 DCMR 302.1(f)]

s. Alternative Operating Scenarios

No alternative operating scenarios are applicable unless specified in the emission unit specific conditions of this permit (Condition III). [20 DCMR 302.1(j)]

II. Facility-Wide Permit Requirements

The Permittee shall comply with the following facility-wide permit requirements wherever applicable to the facility:

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, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. [20 DCMR 606.4]

b. Visible Emissions

1. Visible emissions shall not be emitted into the outdoor atmosphere from stationary sources (excluding fuel-burning equipment placed in initial operation before January 1, 1977); provided, that discharges not exceeding forty percent (40%) opacity (unaveraged) shall be permitted for two (2) minutes in any sixty (60) minute period for an aggregate of twelve (12) minutes in any twenty-four hour (24 hr.) period during start-up, cleaning, soot blowing, adjustment of combustion controls, or malfunction of equipment. [20 DCMR 606.1]
2. Visible emissions whose opacity is in excess of ten percent (10%) (unaveraged), at any time shall not be permitted into the outdoor atmosphere, from any fuel-burning

equipment placed in initial operation before January 1, 1977; provided that [20 DCMR 606.2]:

- A. Opacity not in excess of forty percent (40%) (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 other than during start-up of equipment;
- B. During start-up of equipment, opacity not in excess of forty percent (40%) [averaged over six (6) minutes] shall be permitted for an aggregate of five (5) times per start-up; and
- C. In addition to the emissions permitted under Condition II(b)(2)(A), during shutdown of equipment, opacity not in excess of fifteen percent (15%) (unaveraged) shall be allowed and in addition, opacity not in excess of thirty percent (30%) [averaged over three (3) minutes] shall be permitted for an aggregate of three (3) times per shutdown.

Note that 20 DCMR 606 is subject to an EPA-issued call for a State Implementation Plan (SIP) revision (known as a "SIP call") requiring the District to revise 20 DCMR 606. See "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction", 80 Fed. Reg. 33840 (June 12, 2015). It is likely that this federal action will result in changes to the requirements of 20 DCMR 606. Any such changes, once finalized in the DCMR, will supersede the language of Condition II(b) as stated above.

c. Control of Fugitive Dust

The Permittee shall ensure that fugitive dust from the facility is controlled in accordance with 20 DCMR 605 as follows:

- 1. Reasonable precautions shall be taken to minimize the emission of any fugitive dust into the outdoor atmosphere. The reasonable precautions shall include, but not be limited to, the following:
 - A. In the case of unpaved roads, unpaved roadways, and unpaved parking lots;
 - i. Use of binders, chemicals, or water in sufficient quantities and at sufficient frequencies to prevent the visible emission of dust due to the movement of vehicles or of the wind; and

- ii. Prompt clean-up of any dirt, earth, or other material from the vicinity of the road, roadway, or lot which has been transported from the road, roadway, or lot due to anthropogenic activity or due to natural forces.
- B. In the case of paved roads, paved roadways, and paved parking lots: Maintenance of the road, roadway, lot, or paved shoulder in a reasonably clean condition through reasonably frequent use of water, sweepers, brooms, or other means, through reasonably frequent removal of accumulated dirt from curb-side gutters, through reasonably prompt repair of pavement, or through any other means;
- C. In the case of vehicles transporting dusty material or material which is likely to become dusty:
 - i. Fully covering the material in question, with a tarpaulin or other material; and
 - ii. Operation, maintenance, and loading of the vehicle, distribution of the loaded material on or in the vehicle, and limiting the quantity of material loaded on or in the vehicle, so that there will be no spillage of the material onto the roads;
- D. In the case of vehicles which accumulate dirt on the wheels, undercarriages, and other parts of the vehicle, due to the movement of the vehicle on dusty, dirty or muddy surfaces: Water washing of all of the dirty parts of the vehicle to thoroughly remove the dirt before or immediately after the vehicle leaves the dusty, dirty, or muddy surface;
- E. In the case of the demolition of buildings or structures: Use, to the extent possible, of water;
- F. In the case of removal of demolition debris which is dusty or likely to become dusty: Use of water to thoroughly wet the material before moving or removing the material and keeping it wet or otherwise in a dust-free condition until eventual disposal;
- G. In the case of loading and unloading of dusty material and in the case where dry sand-blasting or dry abrasive cleaning is necessary: Use of enclosed areas or hoods, vents, and fabric filters. If it is shown to the satisfaction of the Department that use of enclosed areas, hoods, vents, and fabric filters is not possible, alternate control techniques acceptable to the Department and designed to minimize the emissions to the extent possible shall be utilized; and
- H. In the case of stockpiles of dusty material: Use, where possible, of closed silos, closed bins or other enclosures which are adequately vented to fabric filters. Where the use of closed silos, closed bins, or other enclosures is not possible,

thorough wetting of the material before loading onto the stockpile and keeping the stockpile wetted, covered, or otherwise in a non-dusty condition.

2. The emission of fugitive dust from the following is prohibited:

- A. Any material handling, screening, crushing, grinding, conveying, mixing, or other industrial-type operation or process;
- B. Heater-planers in repairing asphaltic concrete pavements;
- C. Portable tar-melters, unless close-fitting lids, in good repair, for the tar-pots are available and are used;
- D. The ventilation of any tunneling operation; or
- E. The cleaning of exposed surfaces through the use of compressed gases.

3. All persons shall comply with the provisions of this Condition and those of the Soil Erosion and Sedimentation Control Act of 1977 (D.C. Law 2-23).

4. In those circumstances where it is not possible to comply with specific provisions of both this Condition and the Soil Erosion and Sedimentation Control Act of 1977 (D.C. Law 2-23), the provisions of the Soil Erosion and Sedimentation Control Act of 1977 (D.C. Law 2-23), shall prevail.

d. Open Fires

Open fires shall be prohibited at the Permittee's facility, except as otherwise provided for in 20 DCMR 604.2. [20 DCMR 604]

e. Asbestos

The Permittee shall adhere to the requirements of 20 DCMR 800* pertaining to handling of asbestos-containing materials.

f. Fuel Oil Sulfur Content

Except where a more stringent requirement exists elsewhere in this permit, the Permittee shall comply with the following requirements governing the sulfur content of fuel oils: [20 DCMR 801]

- 1. The purchase, sale, offer for sale, storage, transport, or use of fuel oil that contains more than one percent (1%) sulfur by weight in the District is prohibited, if the fuel oil is to be burned in the District.

2. On and after July 1, 2016, commercial fuel oil that is purchased, sold, offered, stored, transported, or used in the District shall meet the following requirements, unless otherwise specified in Condition II(f)(5):
 - A. Number two (No. 2) commercial fuel oil shall not contain sulfur in excess of five hundred parts per million (500 ppm) by weight, or five one-hundredths percent (0.05%) by weight;
 - B. Number four (No. 4) commercial fuel oil shall not contain sulfur in excess of two thousand five hundred parts per million (2,500 ppm) by weight, or twenty-five one-hundredths percent (0.25%) by weight; and
 - C. Number five (No. 5) and heavier fuel oils are prohibited.
3. On and after July 1, 2018, the purchase, sale, offer for sale, storage, transport, or use of number two (No. 2) commercial fuel oil is prohibited if it contains more than fifteen parts per million (15 ppm) or fifteen ten-thousandths percent (0.0015%) by weight of sulfur, unless otherwise specified in Condition II(f)(5).
4. Fuel oil that was stored in the District by the ultimate consumer prior to the applicable compliance date in Condition II(f)(2) or (3), which met the applicable maximum sulfur content at the time it was stored, may be used in the District after the applicable compliance date.
5. When EPA temporarily suspends or increases the applicable limit or percentage by weight of sulfur content of fuel required or regulated by EPA by granting a waiver in accordance with Clean Air Act § 211(c)(4)(C) provisions, the federal waiver shall apply to corresponding limits for fuel oil in the District as set forth in Condition II(f)(2) or (3).
6. If a temporary increase in the applicable limit of sulfur content is granted under Condition II(f)(5):
 - A. The suspension or increase in the applicable limit will be granted for the duration determined by EPA; and
 - B. The sulfur content for number two (No. 2) and lighter fuel oils may not exceed five hundred parts per million (500 ppm) by weight.
7. Unless precluded by the Clean Air Act or the regulations thereunder, Conditions II(f)(2) and (3) shall not apply to:
 - A. A person who uses equipment or a process to reduce the sulfur emissions from the burning of a fuel oil, provided that the emissions may not exceed those that would

result from the use of commercial fuel oil that meets the applicable limit or percentage by weight specified in Condition II(f)(2) or (3);

- B. The owner or operator of a stationary source where equipment or a process is used to reduce the sulfur emissions from the burning of a fuel oil, provided that the emissions may not exceed those that would result from the use of commercial fuel oil that meets the applicable limit or percentage by weight specified in Condition II(f)(2) or (3); and
 - C. Commercial fuel oil that is transported through the District but is not intended for purchase, sale, offering, storage, or use in the District.
8. For the purpose of determining compliance with the requirements of this section, the sulfur content of fuel oil shall be determined in accordance with the sample collection, test methods, and procedures specified under 20 DCMR 502.6 (relating to sulfur in fuel oil) as follows:
- A. Testing of fuel oil shall be undertaken in accordance with the most current version of the following methods, as appropriate for the application:
 - i. To obtain fuel samples:
 - 1. ASTM D 270, "Standard Method of Sampling Petroleum and Petroleum Products;"
 - 2. ASTM D 4057, "Practice for Manual Sampling of Petroleum and Petroleum Products;" or
 - 3. ASTM D 4177, "Standard Practice for Automatic Sampling of Petroleum and Petroleum Products;"
 - ii. To determine the fuel oil grade: ASTM D 396, "Standard Specification for Fuel Oils;"
 - iii. To determine the sulfur concentration of fuels:
 - 1. ASTM D 129, "Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)";
 - 2. ASTM D 1266, "Standard Test Method for Sulfur in Petroleum Products (Lamp Method)";
 - 3. ASTM D 1552, "Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method)";

4. ASTM D 2622, "Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry";
 5. ASTM D 4294, "Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry;" or
 6. ASTM D 5453, "Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil by Ultraviolet Fluorescence;" and
- iv. Other methods developed or approved by the Department or EPA.
9. The following recordkeeping and reporting requirements shall apply to any purchase, sale, offering for sale, storage, transportation, or use of commercial fuel oil in the District:
- A. On or after the applicable compliance dates specified in Conditions II(f)(2) and (3), at the time of delivery, the transferor of commercial fuel oil shall provide to the transferee an electronic or paper record of the fuel data described as follows, which must legibly and conspicuously contain the following information:
 - i. The date of delivery;
 - ii. The name, address, and telephone number of the transferor;
 - iii. The name and address of the transferee;
 - iv. The volume of fuel oil being sold or transferred;
 - v. The fuel oil grade; and
 - vi. The sulfur content of the fuel oil as determined using the sampling and testing methods specified in Condition II(f)(8), which may be expressed as the maximum allowable sulfur content.
 - B. All applicable records required under Condition II(f)(9)(A) shall be maintained in electronic or paper format for not less than five (5) years; *Note that this is a streamlined requirement. Compliance with the five (5) year record keeping requirement in 20 DCMR 302.1(c)(2)(B) will ensure compliance with the three (3) year record keeping requirement in 20 DCMR 801.9(b).*
 - C. An electronic or paper copy of the applicable records required under Condition II(f)(9)(A) shall be provided to the Department upon request;

- D. The ultimate consumer shall maintain the applicable records required under (a) in electronic or paper format for not less than five (5) years, unless the transfer or use of the fuel oil occurs at a private residence; *Note that this is a streamlined requirement. Compliance with the five (5) year record keeping requirement in 20 DCMR 302.1(c)(2)(B) will ensure compliance with the three (3) year record keeping requirement in 20 DCMR 801.9(d).*
 - E. A product transfer document that meets federal requirements, such as a Bill of Lading, may be used for the data in Condition II(f)(9)(i) through (vi) and shall be considered a certification that the information is accurate; and
 - F. The Department may opt to require supplemental sampling and testing of the fuel oil to confirm the certifications.
- g. Onroad Engine Idling and Nonroad Diesel Engine Idling*
- 1. The Permittee shall ensure that the provisions of 20 DCMR 900.1 pertaining to onroad engine idling are met at the facility. Specifically, the Permittee shall ensure that no engine of a gasoline or diesel powered motor vehicle, the engine of a public vehicle for hire, including buses with a seating capacity of twelve (12) or more persons, shall idle for more than three (3) minutes while the motor vehicle is parked, stopped, or standing, on the premises or on roadways adjacent to the premises for the purpose of serving the premises, including for the purpose of operating air conditioning equipment in those vehicles, except as follows:
 - A. To operate private passenger vehicles;
 - B. To operate power takeoff equipment including: dumping, cement mixers, refrigeration systems, content delivery, winches, or shredders;
 - C. To idle the engine for five (5) minutes to operate heating equipment when the ambient air temperature is thirty two degrees Fahrenheit (32 °F) or below; or
 - D. To operate warming buses during a Cold Emergency Alert in accordance with 20 DCMR 900.1(d).
 - 2. No person owning, operating, leasing, or having control over a nonroad diesel engine, or the holder of the permit for the activity for which the nonroad diesel engine is being operated, shall cause or allow the idling of a nonroad diesel engine under its control or on its property for more than three (3) consecutive minutes. [20 DCMR 900.2]
 - 3. Condition II(g)(2) does not apply to locomotives, generator sets, marine vessels, recreational vehicles, farming equipment, military equipment when it is being used

during training exercises, emergency or public safety situations, or any private use of a nonroad diesel engine that is not for compensation. [20 DCMR 900.3]

4. The idling limit in Condition II(g)(2) does not apply to [20 DCMR 900.4]:

- A. Idling necessary to ensure the safe operation of the equipment and safety of the operator, such as conditions specified by the equipment manufacturer in the manual or an appropriate technical document accompanying the nonroad diesel engine;
- B. Idling for testing, servicing, repairing, diagnostic purposes, or to verify that the equipment is in good working order, including regeneration of a diesel particulate filter, in accordance with the equipment manufacturer manual or other technical document accompanying the nonroad diesel engine;
- C. Idling for less than fifteen (15) minutes when queuing (*i.e.*, when nonroad diesel equipment, situated in a queue of other vehicles, must intermittently move forward to perform work or a service), not including the time an operator may wait motionless in line in anticipation of the start of a workday or opening of a location where work or a service will be performed.
- D. Idling by any nonroad diesel engine being used in an emergency or public safety capacity;
- E. Idling for a state or federal inspection to verify that all equipment is in good working order, if idling is required as part of the inspection; and
- F. Idling for up to five (5) consecutive minutes to operate heating equipment when the ambient air temperature is thirty-two degrees Fahrenheit (32°F) or below.

h. Fleet Maintenance

The Permittee shall ensure that the engines, power, and exhaust mechanisms of each vehicle of its motor fleet is equipped, adjusted, maintained, and operated so as to prevent the escape of a trail of visible fumes or smoke for more than ten (10) consecutive seconds. [20 DCMR 901]*

i. Lead in Gasoline

The Permittee shall ensure that gasoline sold at the facility contains no more than one gram of lead per gallon. [20 DCMR 902]*

j. Odors and Nuisance Air Pollutants

The Permittee shall ensure that the facility does not emit into the atmosphere any odorous or other air pollutant, 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 and property. [20 DCMR 903]*

k. Risk Management

1. The Permittee shall ensure that the requirements of 40 CFR part 68, as in effect on September 30, 1997, are complied with at the site for the purposes of preventing, detecting, and responding to accidental chemical releases to the air, pursuant to the requirements of Section 112(r) of the Federal Clean Air Act with the terms used and defined in those provisions. [20 DCMR 402]*
2. Should this stationary source, as defined in 40 CFR part 68.3, become subject to part 68, then the Permittee shall submit a risk management plan (RMP) by the date specified in Part 68.10 and shall certify compliance with the requirements of part 68 as part of the annual compliance certification required by 40 CFR part 70 or 71. [20 DCMR 302.1(d)]

l. Protection of Stratospheric Ozone

The Permittee shall comply with the protection of stratospheric ozone requirements contained in 40 CFR 82 as follows [20 DCMR 302.1 and 399.1 "Applicable Requirement" (k)]:

1. If the Permittee manufactures, transforms, destroys, imports, or exports a Class I or Class II substance, the Permittee is subject to all the requirements as specified in 40 CFR 82, Subpart A (Production and Consumption Controls).
2. If the Permittee performs a service on a motor vehicle that involves an ozone-depleting substance refrigerant or regulated substitute substance in the MVAC, then Permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B (Servicing of Motor Vehicle Air Conditioners).
3. The Permittee shall comply with the ban on nonessential products containing Class I substances and ban on nonessential products containing or manufactured with Class II substances as specified in 40 CFR 82, Subpart C.
4. The Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR 82 Subpart E, as applicable.

5. The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, as applicable.
6. The Permittee may switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR 82, Subpart G.
7. Halon Emissions Reduction: Any person testing, servicing, maintaining, repairing or disposing of equipment that contains halons or using such equipment during technical training and any person disposing of halons, manufacturers of halon blends, and organizations employing technicians who service halon containing equipment shall comply with the requirements of 40 CFR 82, Subpart H.
8. The Permittee shall comply with the ban on refrigeration and air-conditioning appliances containing HCFCs as specified in 40 CFR 82, Subpart I.

m. Architectural and Maintenance Coatings

1. Paints and refinishing coatings that contain VOCs in excess of the limits specified in the table below, including any VOC containing materials added to the original coating supplied by the manufacturer, shall be prohibited. [20 DCMR 773.1, 774.1, and 774.10]

VOC Content Limits for Architectural Coatings.¹

<u>Coating Category</u>	<u>VOC Content Limit</u> (Grams VOC per liter) ²
Flat Coatings	100
Non-flat Coatings	150
Non-flat- High Gloss Coatings	250

<u>Specialty Coatings</u>	<u>VOC Content Limit</u> (Grams VOC per liter) ²
Antenna Coatings	530
Antifouling Coatings	400
Bituminous Roof Coatings	300
Bituminous Roof Primers	350
Bond Breakers	350
Calcimine Recoater	475
Clear Wood Coatings	
•Clear Brushing Lacquers	680
•Lacquers (including lacquer sanding sealers)	550
•Sanding Sealers (other than lacquer sanding sealers)	350
•Varnishes	350

<u>Specialty Coatings</u>	<u>VOC Content Limit</u> (Grams VOC per liter) ²
Concrete Curing Compounds	350
Concrete Surface Retarders	780
Conjugated Oil Varnish	450
Conversion Varnish	725
Dry Fog Coatings	400
Faux Finishing Coatings	350
Fire-Resistive Coatings	350
Fire-Retardant Coatings	
•Clear	650
•Opaque	350
Floor Coatings	250
Flow Coatings	420
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High-Temperature Coatings	420
Industrial Maintenance Coatings	340
Impacted Immersion Coatings	780
Low-Solids Coatings ³	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	300
Metallic Pigmented Coatings	500
Multi-Color Coatings	250
Nuclear Coatings	450
Pre-Treatment Wash Primers	420
Primers, Sealers, and Undercoaters	200
Reactive Penetrating Carbonate Stone Sealer	600
Quick-Dry Enamels	250
Quick-Dry Primers, Sealers and Undercoaters	200
Recycled Coatings	250
Roof Coatings	250
Rust Preventative Coatings	400
Shellacs	
•Clear	730
•Opaque	550
Specialty Primers, Sealers, and Undercoaters	350
Stains	250
Stone Consolidants	450
Swimming Pool Coatings	340
Swimming Pool Repair and Maintenance Coatings	340
Temperature-Indicator Safety Coatings	550

<u>Specialty Coatings</u>	<u>VOC Content Limit</u> (Grams VOC per liter) ²
Thermoplastic Rubber Coatings and Mastics	550
Traffic Marking Coatings	150
Waterproofing Sealers	250
Waterproofing Concrete/Masonry Sealers	400
Wood Preservatives	350

¹ Limits are expressed in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases. Manufacturer's maximum recommendation means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

² Conversion factor: one pound VOC per gallon (U.S.) = 119.95 grams per liter.

³ Units for this coating are grams of VOC per liter (pounds of VOC/gallon) of coating, including water and exempt compounds.

2. The Permittee shall not apply a coating that is thinned to exceed the applicable VOC limit specified in the above table. [20 DCMR 774.5]
 3. The Permittee shall not apply any rust preventive coating for industrial use, unless such a rust preventive coating complies with the industrial maintenance coating VOC limit specified in the above table. [20 DCMR 774.6]
 4. For any coating that does not meet any of the definitions for the specialty coatings categories listed in the table above, the VOC content limit shall be determined by classifying the coating as a flat coating or a non-flat coating, based on its gloss, as defined in 20 DCMR 799, and the corresponding flat or non-flat coating limit shall apply. [20 DCMR 774.7]
 5. Notwithstanding the provisions of Condition II(m)(1) of this permit, a person or facility may add up to ten percent (10%) by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater than seventy percent (70%) and temperature below sixty-five degrees Fahrenheit (65° F) or eighteen degrees Celsius (18° C) at the time of application, provided that the coating contains acetone and no more than five hundred fifty grams (550 g.) of VOC per liter of coating, less water and exempt compounds, before the addition of VOC. [20 DCMR 774.10]
- n. General Conformity

As a department, agency, or instrumentality of the Federal Government, the Permittee shall comply with the General Conformity requirements of 20 DCMR 1501 and 40 CFR 93, Subpart B, as amended.

III. Emission Unit Specific Requirements

This operating permit identifies emission units based on information provided by the Permittee and cites specific applicable regulations from 20 DCMR, as well as the Code of Federal Regulations (CFR). These cited regulations and rules stipulate the conditions under which the Permittee is permitted to operate, the control equipment (where applicable) that must be used to minimize air pollution, and the monitoring, testing, record keeping, and reporting requirements that will enable the Permittee to demonstrate, to the Department and EPA, compliance with regulatory requirements.

Operation of the emission units listed below is permitted subject to the facility complying with the following emission limits, standards, and other requirements specified herein and elsewhere in this permit [20 DCMR 300].

Emission Units¹				
Emission Unit ID	Stack ID	Emission Unit Name	Ch. 2 Permit No.²	Description
CU-1, CU-2, & CU-3	S1	Central Heat Plant Boilers 1, 2, and 3	-	Three (3) 20.41 million BTU per hour (MMBTU/hr) dual fuel fired (natural gas and No. 2 fuel oil) Cleaver Brooks Boilers
EG-1	S36	Research Building Emergency Generator	-	One (1) 50 kWe Katolight generator set with 75 hp diesel engine (installed 2002)
EG-2	S37	Amazonia Emergency Generator	-	One (1) 600 kWe Generac generator set with 894 hp diesel engine (manufactured 2004)
EG-4	S39	Reptile House Emergency Generator	7002	One (1) 180 kWe Power Systems International, Inc. (PSI, Inc.) generator set with 302 hp natural gas engine (manufactured 2009/installed 2012)
EG-5	S40	General Services Building Emergency Generator	6885	One (1) 200 kWe PSI, Inc. generator set with 302 hp natural gas engine (manufactured 2009/installed 2013)
EG-6	S41	Panda House Emergency Generator	6217-R2	One (1) 200 kWe generator set with 309 hp natural gas engine (manufactured 2004/installed 2004)
EG-7	S42	Vet Hospital Emergency Generator	-	One (1) 115 kWe Katolight generator set with 171 hp natural gas engine (installed 1987)

Emission Units ¹				
Emission Unit ID	Stack ID	Emission Unit Name	Ch. 2 Permit No. ²	Description
EG-8	S43	Cheetah Springs Emergency Generator	6592-R1	One (1) 35 kWe Generac generator set with 54 hp natural gas engine (manufactured 2009/installed 2011)
EG-9	S44	Bird House Emergency Generator	-	One (1) 100 kWe Detroit Diesel generator set with 162 hp natural gas engine (manufactured 2004)
EG-10	S45	Central Heat Plant Emergency Generator	6593-R1	One (1) 130 kWe Ford generator set with 189 hp natural gas engine (manufactured 2009/installed 2011)
EG-11	S46	Sloth Bear Area Emergency Generator	6216-R2	One (1) 85 kWe Katolight generator set with 164 hp natural gas engine (manufactured 1998/installed 2006)
EG-12	S47	Visitor Center Emergency Generator	6191-R2	One (1) 150 kWe Kohler generator set with 228 hp natural gas engine (manufactured 2008/installed 2010)
EG-13	S48	Lion/Tiger House Emergency Generator	6553-R1	One (1) 25 kWe PSI, Inc. generator set with 52 hp propane engine (manufactured 2009/installed 2011)
EG-15	S50	Seal/Sea Lion Area Emergency Generator	7003	One (1) 200 kWe PSI, Inc. generator set with 302 hp natural gas engine (manufactured 2009/installed 2010)
EG-16	S51	Beaver Otter Area Emergency Generator	-	One (1) 9 kWe Katolight generator set with 13 hp propane gas engine
EG-18	S53	Greenhouse Emergency Generator	6982	One (1) 14 kWe Generac generator set with 32 hp natural gas engine (manufactured 2009/installed 2012)
EG-20	S55	Elephant House Emergency Generator	6209-R2	One (1) 230 kWe generator set with 357 hp natural gas engine (manufactured 2008/installed 2012)
EG-21	S56	Genetics Emergency Generator	6314-R1	One (1) 100 kWe Cummins generator set with 153 hp natural gas engine (manufactured 2009/installed 2010)

Emission Units ¹				
Emission Unit ID	Stack ID	Emission Unit Name	Ch. 2 Permit No. ²	Description
EG-22	S64	Think Tank Emergency Generator	7043-SC-0015	One (1) 50 kWe Generac generator set with 80 hp natural gas engine (model year 2016/installed 2017)
EG-23	S49	Police Station Emergency Generator	7048-SC-0051	One (1) 250 kWe Kohler generator set with 385 hp John Deere diesel-fired engine (model year 2017/installed 2018)
General Services Building	-	Paint Spray Booth	6978	One (1) Binks water wash paint spray booth
General Services Building	-	Woodworking operations	6979	One (1) sawdust collector for woodworking operations
General Services Building Tanks T18 and T19	-	Gasoline/Diesel Split Storage Tank ³	-	One (1) fuel storage tank partitioned to store gasoline storage tank (3,000 gallon capacity) and diesel (1,000 gallon capacity) and associated dispensing equipment

¹ Miscellaneous/Insignificant activities are listed separately in Condition IV of this permit.

² The Chapter 2 permit numbers listed here are for reference only. The requirements of the Chapter 2 permits have been incorporated into this permit and the separate Chapter 2 permit documents are no longer maintained.

³ Only the 3,000 gallon gasoline partition of the tank with its associated dispensing equipment is considered significant, and is treated as a separate tank in Condition III(g) of this permit. The 1,000 gallon diesel partition is treated as an insignificant activity in Condition IV of this permit.

- a. Emission Units: CU-1, CU-2, and CU-3 (Boilers): Three (3) identical 20.41 MMBTU/hr Cleaver Brooks dual fuel (natural gas/No. 2 fuel oil) fired boilers.

1. Emission Limitations:

- A. Each of the three (3) boilers shall not emit pollutants in excess of those specified in the following table [20 DCMR 201]:

Emission Limits for Each Boiler (CU-1, CU-2, and CU-3) By Fuel Type		
Pollutant	Natural Gas (lb/hr)	No. 2 Fuel Oil (lb/hr)
Carbon Monoxide (CO)	1.68	0.73
Oxides of Nitrogen (NO _x)	0.72	2.92
Total Particulate Matter (PM Total) (includes both filterable and condensable fractions)	0.15	0.48
Sulfur Dioxide (SO ₂)	0.012	0.031

- B. Total suspended particulate (TSP) matter emissions from each of the boilers shall not exceed 0.09 pounds per MMBTU respectively. [20 DCMR 600.1]
- C. 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, cleaning, adjustment of combustion controls, or malfunction of the equipment [20 DCMR 606.1]

Note that 20 DCMR 606 is subject to an EPA-issued call for a State Implementation Plan (SIP) revision (known as a "SIP call") requiring the District to revise 20 DCMR 606. See "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction", 80 Fed. Reg. 33840 (June 12, 2015). It is likely that this federal action will result in changes to the requirements of 20 DCMR 606. Any such changes, once finalized in the DCMR, will supersede the language of Condition III(a)(1)(C) as stated above.

- D. 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 and property is prohibited. [20 DCMR 903.1]
- E. NO_x and CO emissions shall not exceed those achieved with the performance of annual combustion adjustments on each boiler. To show compliance with this condition, the Permittee shall, each calendar year, perform adjustments of the combustion processes of the boilers with the following characteristics [20 DCMR 805.8(a) and (b)]:
 - i. Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer;
 - ii. Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x and, to the extent practicable, minimize emissions of CO;
 - iii. Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer; and

- iv. Adjustments shall be made such that the maximum emission rate for any contaminant does not exceed the maximum allowable emission rate as set forth in this section.

2. Operational Limitations:

- A. The primary fuel for the boilers shall be natural gas. No. 2 fuel oil or diesel fuel shall only be used in accordance with Condition III(a)(2)(D). No other fuels are approved for use in these boilers. [20 DCMR 201]
- B. The alternative fuel for the boilers shall be No. 2 fuel oil. The sulfur content of any No. 2 fuel oil purchased for use in this equipment shall be no more than 0.0015% sulfur by weight (15 ppm). [20 DCMR 201, 20 DCMR 205.1, 20 DCMR 801.3, and 40 CFR 60.42c(d)] [see also Condition II(f), which is also applicable] *Note that this is a streamlined permit requirement. The applicant's application indicates that the sulfur content will not exceed 0.0015% by weight, which has been incorporated as the current requirement. This is more stringent than 40 CFR 60.42c(d) or 20 DCMR 801.1, therefore compliance with this requirement will also show compliance with 20 DCMR 801.1 and between July 1, 2016 and June 30, 2018 is consistent with the requirement in 20 DCMR 801.2.*
- C. The boilers shall be operated at all times in a manner consistent with the manufacturer's specifications for the equipment.
- D. The boilers shall operate on No. 2 fuel oil or diesel fuel only for the following reasons: [20 DCMR 201, 40 CFR 63.11195(e) and 40 CFR 63.11237]
 - i. During periods of gas supply emergencies;
 - ii. During periods of gas curtailment; or
 - iii. For periodic testing on liquid fuel not to exceed a combined total of 48 hours during any calendar year.
- E. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate each boiler in a manner consistent with good air pollution control practice 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 201]

3. Monitoring and Testing:

A. At least once during the term of this permit, the Permittee shall conduct performance tests on each of the three boilers, using each of the allowable fuels, to determine compliance with Condition III(a)(1)(A) and (B) (except SO₂ which can be shown by fuel sulfur content) and shall furnish the Department with a written report of the results of such performance tests in accordance with the following requirements [20 DCMR 502]:

- i. One (1) original 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
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington, DC 20002

- ii. The test protocol shall be approved by the Department 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 Department 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 Department within sixty (60) days of the test completion. One (1) original test report shall be submitted to the address in Condition III(a)(3)(A)(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 Permittee 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.
- v. The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the Permittee shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.
- B. The Permittee shall comply with the requirements of Condition I(d)(2)(B)(ii) to ensure compliance with Condition III(a)(2)(B) of this permit.
- C. At least once per quarter when operating on natural gas and once per week when operating on No. 2 fuel oil, during operation of each boiler, the Permittee shall conduct visual observations of the emissions from each boiler. If no operations are occurring for a given boiler during a given quarter, this shall be so noted. If emissions are visible, the Permittee shall make arrangements for prompt visible emissions testing (within 30 days) by a person certified in accordance with EPA Reference Method 9 (40 CFR 60, Appendix A). Such a test shall consist of a minimum of 30 minutes of opacity observations for the boiler in question and shall be performed while firing the same fuel as was in use when the visible emissions were observed.
- D. Regardless of whether or not emissions are observed pursuant to Condition III(a)(3)(C) of this permit, the Permittee shall conduct a minimum of one visible emissions test of each boiler per year for each fuel burned since the last visible emissions test required under this permit condition. If the only combustion of a given fuel burned since the last test was burned during periodic testing required by this permit, no visible emission test for that fuel will be required under this condition.
 - i. Such a test program shall consist of a minimum of 30 minutes of opacity observations of each boiler firing each fuel and shall be performed by a person certified in accordance with EPA Reference Method 9 (40 CFR 60, Appendix A).
 - ii. Prior to such a test, the Permittee shall notify the Compliance and Enforcement Branch of the scheduled date of the test by one of the following methods:
 1. The Permittee shall submit a letter via postal mail to the address in Condition III(a)(3)(A)(i), postmarked at least fifteen (15) days prior to the scheduled date of the test;

- 2. The Permittee shall drop off a letter at the Department's Office, addressed to the Chief of the Compliance and Enforcement Branch of the Air Quality Division at least ten (10) days prior to the scheduled date of the test; or
 3. The Permittee shall submit an email to the Chief of the Compliance and Enforcement Branch at least ten (10) days prior to the scheduled date of the test. The appropriate email address can be obtained by calling the Air Quality Division number at (202) 535-2250
 - E. The Permittee shall monitor the type and amount of each fuel burned in the boilers, along with the reason for and duration of any use of No. 2 fuel oil.
4. Record Keeping and Reporting Requirements:
- A. The Permittee shall keep records of the results of all emissions testing required for the three boilers pursuant to Conditions III(a)(3)(A) and I(a)(6) in accordance with the requirements specified in Condition I(c). [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]
 - B. The Permittee shall maintain records of fuel information obtained pursuant to Condition III(a)(3)(B) in accordance with the requirements specified in Condition I(c). [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]
 - C. The Permittee shall maintain records of all visible emissions monitoring performed pursuant to Condition III(a)(3)(C) including notes indicating when no observations were performed as a result of no operations of a given boiler on a given fuel that quarter or week, as applicable. These records shall be maintained in an organized fashion, shall include the identity of the person performing the monitoring, and shall be readily available for inspection by the Department. [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8].
 - D. The Permittee shall maintain records of all Method 9 visible emissions testing performed pursuant to Conditions III(a)(3)(C) and (D) in accordance with the requirements specified in Condition I(c). These records shall also include the identity of the person performing the visible emissions testing and documentation of his/her Method 9 certification. These records shall include documentation indicating whether the results show compliance with Conditions III(a)(1)(C). [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8].
 - E. The Permittee shall maintain records of all instances of boiler operation using No. 2 fuel oil, including the reason for operation using that fuel and the number of hours the boiler is operated using that fuel. These data shall be maintained in a rolling 12-month sum format. [20 DCMR 302.1(c)(2)(B), 20 DCMR 500.2 and 20 DCMR 500.8]

- F. The Permittee shall maintain records of the amount of each fuel used each month in the boiler. These data shall be maintained in a rolling 12-month sum format. [20 DCMR 302.1(c)(2)(B), 20 DCMR 500.2 and 20 DCMR 500.8]
- G. The Permittee shall keep records of the following information regarding the combustion adjustments required pursuant to Condition III(a)(1)(E): [20 DCMR 805.8(c)]
- The date on which the combustion process was last adjusted;
 - The name, title, and affiliation of the person who made the adjustments;
 - The NO_x emission rate, in ppmvd, after the adjustments were made;
 - The CO emission rate, in ppmvd, after the adjustments were made;
 - The CO₂ concentration, in percent (%) by volume dry basis, after the adjustments were made;
 - The O₂ concentration, in percent (%) by volume dry basis, after the adjustments were made; and
 - Any other information that the Department may require.
- H. The Permittee shall keep records of all maintenance performed on the boilers so as to document compliance with Conditions III(a)(2)(E). These records shall be initialed to attest to their accuracy.
- b. Emission Units: New Source Performance Standards (NSPS) Spark Ignition Internal Combustion Engine (SI-ICE) Powered Emergency Generator Sets: Eight (8) natural gas fired and one (1) propane fired emergency standby generator sets subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI-ICE), 40 CFR 60 Subpart JJJJ, listed below:

Equipment Location (Chapter 2 Permit No.)	Emission Unit Description	Generator Model Number/Engine Model Number
Reptile House (7002)	One (1) 180 kW Power Systems International, Inc. (PSI, Inc.) generator set with 302 hp natural gas engine (manufactured 2009/installed 2012)	180REZXB/D111L
General Services Building	One (1) 200 kW PSI, Inc. generator set with 302 hp natural gas engine	G5002N6SRAS098 4/D111L

Equipment Location (Chapter 2 Permit No.)	Emission Unit Description	Generator Model Number/Engine Model Number
(6885)	(manufactured 2009/installed 2013)	
Cheetah Springs (6592-R1)	One (1) 35 kWe Generac generator set with 54 hp natural gas engine (manufactured 2009/installed 2011)	13445040200/4.2L
Central Heating Plant (6593-R1)	One (1) 130 kWe Ford generator set with 189 hp natural gas engine (manufactured 2009/installed 2011)	13440230100
Lion/Tiger House (6553-R1)	One (1) 25 kWe PSI, Inc. generator set with 52 hp propane engine (manufactured 2009/installed 2011)	25REZG/39001019
Seal/Sea Lion (7003)	One (1) 200 kWe PSI, Inc. generator set with 302 hp natural gas engine (manufactured 2009/installed 2010)	200REZX/D111L
Greenhouse Area (6982)	One (1) 14 kWe Generac generator set with 32 hp natural gas engine (manufactured 2009/installed 2012)	0055030/068244
Genetics (6314-R1)	One (1) 100 kWe Cummins generator set with 153 hp natural gas engine (manufactured 2009/installed 2010)	GGHH-816085/ WSG-1068
Think Tank (7043-SC-0015)	One (1) 50 kWe Generac generator set with 80 hp natural gas engine (model year 2016/installed 2017)	SG050 5.4L/ GGNXB05.42NN

1. Emission Limitations:

- A. Emissions from these units shall not exceed those in the following table, as measured according to the procedures set forth in 40 CFR 60.4244 [40 CFR 60.4233(d), 40 CFR 60.4244, and Subpart JJJJ, Table 1]: *(Note that the emission standards for some of the generators in the following table are more stringent than those required for emergency engines because the engine covered by this permit was certified to operate as a non-emergency engine and the unit must be properly maintained to continue to meet the standards to which it has been certified.)*

Emission Standards (g/hp-hr)				
Pollutant	Columns by Engine Size (hp)			
	32/52/54/80 (Permit Nos. (6982/6553-R1 /6592-R1/ 7043-SC-0015)	153/189 (Permit Nos. (6314-R1 /6593-R1)	302 (Permit No. 6885) ¹	189/302 (Permit Nos. 7002/7003) ¹
NO _x	10	2.0	1.0	1.0
CO	387	4.0	2.0	2.0
VOC	N/A	1.0	0.7	0.7
NMHC + NO _x	N/A	N/A	N/A	2.0

¹See also the EPA Certificates of Conformity submitted with the Chapter 2 permit applications. These units are certified as non-emergency units and therefore must meet the non-emergency standards.

- B. Visible emissions shall not be emitted into the outdoor atmosphere from these 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]

Note that 20 DCMR 606 is subject to an EPA-issued call for a State Implementation Plan (SIP) revision (known as a "SIP call") requiring the District to revise 20 DCMR 606. See "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction", 80 Fed. Reg. 33840 (June 12, 2015). It is likely that this federal action will result in changes to the requirements of 20 DCMR 606. Any such changes, once finalized in the DCMR, will supersede the language of Condition III(b)(1)(B) as stated above.

- C. 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]

2. Operational Limitations:

- A. Each of the emergency generators shall be operated for no more than 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. [20 DCMR 201 and 20 DCMR 805.1(c)]

- B. With the exceptions specified in Condition III(b)(2)(C) below, the emergency generators 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 generators may be operated for the purpose of maintenance checks and readiness testing and in non-emergency situations for a period not to exceed one hundred (100) hours per calendar year as specified in Conditions III(b)(2)(C)(i) and (ii) below. Any such operation shall be considered as part of the 500 hours allowed under Condition III(b)(2)(A) above. [40 CFR 60.4243(d)]
 - i. The emergency generators 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 60.4243(d)(2)(i) and DCMR 201]; and
 - ii. The emergency generators may each be operated for up to fifty (50) hours per calendar year in non-emergency situations, subject to the following conditions [40 CFR 60.4243(d)(3) 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(b)(2)(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(b)(2)(F) are also prohibited under this condition; and
 - 4. All operations resulting from a deviation in voltage or frequency from the electric provider to the premises such that the equipment being supported cannot be safely or effectively operated shall be considered non-emergency operation and counted as part of this 50 hour per calendar year allowance.

- D. The emergency generators shall fire only natural gas except Lion/Tiger House generator which shall fire only propane. [20 DCMR 201]
 - E. The emergency generators shall be operated and maintained in accordance with the recommendations of the equipment manufacturers. [20 DCMR 201 and 40 CFR 60.4243(a)]
 - 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. [20 DCMR 201]
 - G. At all times, including periods of startup, shutdown, and malfunction, the owner shall, to the extent practicable, maintain and operate the units in a manner consistent with good air pollution control practice 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 201]
3. Monitoring and Testing Requirements:
- A. The Permittee shall monitor the date, time, duration, and reason for the each emergency generator startup to ensure compliance with Conditions III(b)(2)(A), (B), (C) and (F). [20 DCMR 500.2 and 20 DCMR 302.1(c)(1)(B) and (C)]
 - B. In order to ensure compliance with Condition III(b)(2)(A), the Permittee shall monitor the total hours of operation each month with the use of properly functioning, non-resettable hour metering device. [40 CFR 60.4237 and 60.4245(b)]
 - C. 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]
4. Record Keeping Requirements:
- A. For each generator, the following information shall be recorded, initialed (except records generated automatically by an electronic system), and maintained in a log at the facility in accordance with the requirements specified in Condition I(c). [20 DCMR 301.2(c)(2)(B) and 20 DCMR 500.8]
 - i. The date, time, duration, and reason for each start-up of the emergency generator including the following information;

1. If the unit is operated in non-emergency situations pursuant to Condition III(b)(2)(C), the specific purpose for each operation period must be recorded; and
 2. If the unit is operated for emergency purposes, what classified the operation as emergency.
 - ii. 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;
 - iii. The total hours of operation for maintenance checks and readiness testing and non-emergency operation pursuant to Condition III(b)(2)(C) each month, and totaled for each calendar year by January 15 of each year for the previous calendar year;
 - iv. The total hours of operation each calendar year for non-emergency purposes pursuant to Condition III(b)(2)(C)(ii);
 - v. Records of the quantity of fuel used in the engine/generator, recorded on a monthly basis by the 15th day of each month for the previous calendar month;
 - vi. Records of the maintenance performed on the unit *[Note that these records must be sufficient to show that the Permittee is complying with the requirements of Condition III(b)(2)(E)]*;
 - vii. Records of the results of any visible emissions monitoring performed;
 - viii. Records of the occurrence and duration of each malfunction of operation; and
 - ix. Records of the actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning 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. [20 DCMR 501]
- C. For each unit, the Permittee shall maintain a copy of the EPA Certificate of Conformity at the facility at all times.

- c. Emission Units: Non-NSPS SI-ICE Powered Emergency Generators Sets: Six (6) natural gas-fired and one (1) propane-fired emergency standby generator sets not subject to any NSPS are listed below:

Equipment Location (Chapter 2 Permit No.)	Emission Unit Description	Generator Model Number/Engine Model Number
Panda (6217-R2)	One (1) 200 kWe Generac generator set with 309 hp natural gas engine	3612220200/088486
Vet Hospital	One (1) 115 kWe Katolight generator set with 171 hp natural gas engine	N125FRZ4/G743
Bird House	One (1) 100 kWe Detroit Diesel generator set with 162 hp natural gas engine	100GSG/8.1L
Sloth Bear area (6216-R1)	One (1) 85 kWe Katolight generator set with 164 hp natural gas engine	N85FRF4/460T
Visitor Center (6191-R2)	One (1) 150 kWe Kohler generator set with 228 hp natural gas engine	150RZGB/GM-8.1L
Elephant House (6209-R2)	One (1) 230 kWe Generac generator set with 357 hp natural gas engine	10619860300/088486
Beaver Otter Area	One (1) 9 kWe Katolight generator set with 13 hp propane gas engine	N10FPW4/VH4D1

1. 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 (24) hour period during start-up, cleaning, adjustment of combustion controls, or malfunction of the equipment. [20 DCMR 606.1]

Note that 20 DCMR 606 is subject to an EPA-issued call for a State Implementation Plan (SIP) revision (known as a "SIP call") requiring the District to revise 20 DCMR 606. See "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction", 80 Fed. Reg. 33840 (June 12, 2015). It is likely that this federal action will result in changes to the requirements of 20 DCMR 606. Any such changes, once finalized in the DCMR, will supersede the language of Condition III(c)(1)(A) as stated above.

- 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]

2. Operational Limitations:

- A. Each of the emergency generators shall be operated for fewer than 500 hours in any given 12 month period. If operation of 500 hours or more 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. [20 DCMR 201].
- B. Except as specified in Condition III(c)(2)(C), the emergency generators 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. Each of the emergency generators may be operated for the purpose of maintenance checks and readiness testing and in non-emergency situations for a period not to exceed one hundred (100) hours per calendar year as specified in Conditions III(c)(2)(C)(i) and (ii) below. Any such operation shall be considered as part of the 500 hours allowed under Condition III(c)(2)(A) above. [40 CFR 63.6640(f)]
 - i. The emergency generators 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
 - ii. Each of the emergency generators 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 operations shall be counted as part of the 100 hours per calendar year for maintenance and testing as provided in Condition III(c)(2)(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(c)(2)(E) are also prohibited under this condition; and
 4. All operations resulting from a deviation in voltage or frequency from the electric provider to the premises such that the equipment being supported cannot be safely or effectively operated shall be considered non-emergency operation and counted as part of this 50 hour per calendar year allowance.
- D. The emergency generators shall fire only natural gas except the Police Station and Beaver/Otter Area generators which shall fire only propane. [20 DCMR 201]
- E. 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. [20DCMR 201]
- F. The emergency generators 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(c)(2)(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]:
- i. 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;
 - ii. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

- H. The Permittee shall minimize each 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 thirty (30) minutes. [40 CFR 63.6625(h)]
- I. At all times, including periods of startup, shutdown, and malfunction, the owner 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]

3. Monitoring and Testing Requirements:

- A. The Permittee shall monitor the date, time, duration, and reason for each emergency generator start-up to ensure compliance with Conditions III(c)(2)(A), (B), (C), and (E) of this permit. [20 DCMR 500.2]
- B. In order to ensure compliance with Condition III(c)(2)(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)]

4. Record Keeping Requirements:

- A. For each generator, the following information shall be recorded, initialed (except records generated automatically by an electronic system), and maintained in a log at the facility in accordance with the requirements specified in Condition I(c) [20 DCMR 302.1(c)(2)(B), 20 DCMR 500.8, 40 CFR 63.6660, 40 CFR 66.6655, and 40 CFR 63.10(b)]:
 - i. The date, time, duration, and reason for each start-up of the emergency generator, including the following specific information:
 - 1. If the unit is operated in non-emergency situations pursuant to Condition III(c)(2)(C)(ii), the specific purpose for each operation period must be recorded; and

2. If the unit is operated for emergency purposes, what classified the operation as emergency.
 - ii. 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;
 - iii. The total hours of operation for maintenance checks and readiness testing and non-emergency operation pursuant to Condition III(c)(2)(C) each month, and totaled for each calendar year by January 15 of each year for the previous calendar year;
 - iv. The total hours of operation each calendar year for non-emergency purposes pursuant to Condition III(c)(2)(B)(ii), totaled by January 15 of each calendar year for the previous calendar year;
 - v. Records of the quantity of fuel used in the engine/generator, recorded on a monthly basis by the 15th day of each month for the previous calendar month;
 - vi. Records of the maintenance performed on each unit *[Note that these records must be sufficient to show that the Permittee is complying with the requirements of Condition III(c)(2)(F)]*;
 - vii. Records of the results of any visible emissions monitoring performed;
 - viii. Records of the occurrence and duration of each malfunction of operation; and
 - ix. 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 each 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]

- d. Emission Units: Non-NSPS Compression Ignition Internal Combustion Engine (CI-ICE) Powered Emergency Generator Sets: Two (2) diesel-fired emergency standby generator sets not subject to any NSPS as listed below:

Equipment Location	Emission Unit Description	Equipment Serial Number
Research	One (1) 50 kW Katolight generator set with 75 hp diesel engine	John Deere 4045TF150C
Amazonia	One (1) 600 kW Generac generator set with 894 hp diesel engine	Daewoo P222LE

1. 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]

Note that 20 DCMR 606 is subject to an EPA-issued call for a State Implementation Plan (SIP) revision (known as a "SIP call") requiring the District to revise 20 DCMR 606. See "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction", 80 Fed. Reg. 33840 (June 12, 2015). It is likely that this federal action will result in changes to the requirements of 20 DCMR 606. Any such changes, once finalized in the DCMR, will supersede the language of Condition III(d)(1)(A) as stated above.

- 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]

2. Operational Limitations:

- A. Each of the emergency generators shall be operated for fewer than 500 hours in any given 12 month period. If operation of 500 hours or more 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. [20 DCMR 201]

- B. Except as specified in Condition III(d)(2)(C), the emergency generators 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. Each of the emergency generators may be operated for the purpose of maintenance checks and readiness testing and in non-emergency situations for a period not to exceed one hundred (100) hours per calendar year as specified in Conditions III(d)(2)(C)(i) and (ii) below. Any such operation shall be considered as part of the 500 hours allowed under Condition III(d)(2)(A) above. [40 CFR 63.6640(f)]
 - i. The emergency generators 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
 - ii. Each of the emergency generators 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 operations shall be counted as part of the 100 hours per calendar year for maintenance and testing as provided in Condition III(d)(2)(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(d)(2)(E) are also prohibited under this condition; and
 - 4. All operations resulting from a deviation in voltage or frequency from the electric provider to the premises such that the equipment being supported cannot be safely or effectively operated shall be considered non-emergency operation and counted as part of this 50 hour per calendar year allowance.

- D. The Permittee must operate the emergency generator engines on diesel fuel that contains a maximum sulfur content of 15 ppm (0.0015 percent by weight) and either a cetane index of 40 or a maximum aromatic content of 35 volume percent. [20 DCMR 201 and 20 DCMR 801]
- E. 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. [20DCMR 201]
- F. The emergency generators 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(d)(2)(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]:
 - i. 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;
 - ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- H. The Permittee shall minimize each 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 owner 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]

3. Monitoring and Testing:

- A. The Permittee shall monitor the date, time, duration, and reason for each emergency generator start-up to ensure compliance with Conditions III(d)(2)(A), (B), (C) and (E) of this permit. [20 DCMR 500.2]
- B. The Permittee shall monitor and/or test the diesel fuel used for these units as necessary in accordance with Condition I(d)(2)(B)(ii) to ensure compliance with Condition III(d)(2)(D). [20 DCMR 500.2 and 20 DCMR 502.6]
- C. In order to ensure compliance with Condition III(d)(2)(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)]
- 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]

4. Record Keeping Requirements:

- A. For each generator, the following information shall be recorded, initialed (except records generated automatically by an electronic system), and maintained in a log at the facility in accordance with the requirements specified in Condition I(c) [20 DCMR 302.1(c)(2)(B), 20 DCMR 500.8, 40 CFR 63.6660, 40 CFR 66.6655, and 40 CFR 63.10(b)]:
 - i. The date, time, duration, and reason for each start-up of the emergency generator, including the following specific information:
 - 1. If the unit is operated in non-emergency situations pursuant to Condition III(d)(2)(C)(ii), the specific purpose for each operation period must be recorded; and
 - 2. If the unit is operated for emergency purposes, what classified the operation as emergency.

- ii. 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;
 - iii. The total hours of operation for maintenance checks and readiness testing and non-emergency operation pursuant to Condition III(d)(2)(C) each month, and totaled for each calendar year by January 15 of each year for the previous calendar year;
 - iv. The total hours of operation for non-emergency purposes each calendar year pursuant to Condition III(d)(2)(C)(ii), totaled by January 15 of each calendar year for the previous calendar year;
 - v. Records of the quantity of fuel used in the engine/generator, recorded on a monthly basis by the 15th day of each month for the previous calendar month;
 - vi. Records of the maintenance performed on each unit *[Note that these records must be sufficient to show that the Permittee is complying with the requirements of Condition III(d)(2)(F)]*;
 - vii. Records of the results of any visible emissions monitoring performed;
 - viii. Records of the occurrence and duration of each malfunction of operation; and
 - ix. 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 each 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. The Permittee shall comply with the requirements of Condition I(d)(2)(B)(ii) to ensure compliance with Condition III(d)(2)(D) of this permit.

- e. Emission Unit SPB-1; Paint Spray Booth – One Binks Manufacturing Co. water wash paint spray booth

1. Emission Limitations:

- A. The Permittee shall not discharge into the atmosphere more than fifteen (15) pounds of VOC emissions in any one (1) day, nor more than three pounds (3 lb.) in any one (1) hour, from any combination of articles, machines, units, equipment, or other contrivances at a facility, unless the uncontrolled VOC emissions are reduced by at least ninety percent (90%) overall capture and control efficiency. [20 DCMR 700.2]
- 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]
- C. Visible emissions shall not be emitted into the outdoor atmosphere from the paint spray booth. [20 DCMR 107 and 606]

2. Operational Limitations:

- A. No chemical strippers containing methylene chloride (MeCl) shall be used for paint stripping at the facility. [20 DCMR 201]
- B. Adhesives, sealants, adhesive primers, or sealant primers shall not be used in the equipment unless they meet the following requirements [20 DCMR 201, 20 DCMR 744.2, and 20 DCMR 745.1]:
 - i. They are contact adhesives sold or supplied by the manufacturer in containers containing a net volume of one gallon or less;
 - ii. They are plastic cement welding adhesives (any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces) with VOC content not exceeding 400 g/L for ABS welding, 490 g/L for CPVC welding, 510 g/L for PVC welding, or 510 g/L for other plastic cement welding;
 - iii. They are other adhesives, sealants, adhesive primers, or sealant primers sold or supplied by the manufacturer or supplier in containers with a net volume of sixteen (16) fluid ounces or less, or a net weight of one pound or less; or

- iv. The adhesive, sealant, adhesive primer, or sealant primer has received written approval from the Department for use in the equipment and complies with the requirements of 20 DCMR 743-749, as applicable.
- C. Mobile equipment, as defined in 20 DCMR 799, shall not be coated in this paint booth. [20 DCMR 201]
- D. The coatings applied shall be by one or more of the following methods [20 DCMR 201]:
 - i. Powder coating;
 - ii. Hand-held, non-refillable aerosol containers;
 - iii. Non-atomizing application technology (paint brushes, rollers, hand wiping, flow coating, dip coating, touch-up markers, or marking pens);
 - iv. Other non-atomizing application technology approved by the Department to not be covered by 40 CFR 63, Subpart HHHHHH or another regulation not addressed in this permit; or
 - v. High volume low pressure (HVLV) spray guns.
- E. Whenever spray guns are used [20 DCMR 201]:
 - i. The coatings used shall not contain any compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd); and
 - ii. Cleaning of spray guns shall be performed by one or a combination of the following methods:
 - 1. A fully enclosed spray gun cleaning system that is kept closed when not in use;
 - 2. An unatomized discharge of cleaning solvent into a paint waste container that is kept closed when not in use; or
 - 3. Disassembly of the spray gun and cleaning in a vat that is kept closed when not in use; or
 - 4. Use of an atomized spray into a paint waste container that is fitted with a device designed to capture atomized solvent emissions
- F. The paint spray booth shall meet the following specifications [20 DCMR 201]:

- i. The unit shall be of a water wash booth type with a water curtain in use whenever the booth is in use to capture paint overspray.
 - ii. The water wash booth shall be maintained and operated at all times in accordance with manufacturer's recommendations, including but not limited to the following:
 - 1. The water wash booth shall be cleaned thoroughly at least once each week that the unit is used by draining water and removing sediment; and
 - 2. The pump suction pipe shall be cleaned if the manifold pressure drops to five (5) pounds.
- G. The owner and operator of this facility shall comply with the following housekeeping and pollution prevention measures [20 DCMR 201]:
 - i. Store fresh and used coatings, solvent, and cleaning solvents in non-absorbent, non-leaking containers;
 - ii. Close all repairing and refinishing coating containers at all times except when filling, emptying, or in active use;
 - iii. Store cloth and paper, or other absorbent applicators, moistened with coatings, solvents, or cleaning solvents in closed, non-absorbent, non-leaking containers;
 - iv. Minimize spills during the handling and transfer of coatings, solvents, and cleaning solvents; and
 - v. The use of all fresh and used coatings, solvent, and cleaning solvents shall be in accordance with the recommendations of the most current version of their material safety data sheet (MSDS) for the use of the products.
- H. At all times, including periods of startup, shutdown, and malfunction, the owner shall, to the extent practicable, maintain and operate the spray painting equipment in a manner consistent with good air pollution control practice 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 201]

3. Monitoring and Testing:

- A. The Permittee shall monitor the contents of any chemical strippers used at the facility to ensure that they do not contain MeCl.
- B. The Permittee shall track the quantity and VOC content of all paints and coatings used at the facility, as applied, to ensure compliance with Condition II(a). If applied, unadulterated, as the coating is obtained from the manufacturer, documentation provided by the manufacturer may be used to determine the VOC content.

Whenever such information is not available from the manufacturer or whenever a paint or coating is not applied as obtained from the manufacturer, the following method shall be used to determine the VOC content:

The mass of VOC per combined volume of VOC and coating solids, less water and exempt compounds shall be calculated, in pounds per gallon, by the following equation. To convert from grams per liter to pounds per gallon (lb/gal), multiply the result (VOC content) by 8.345×10^{-3} (lb/gal/g/l):

$$VOC = \frac{(W_v - W_w - W_{ec})}{(V - V_w - V_{ec})}$$

where:

VOC	=	VOC content in grams per liter (g/l) of coating less water and non-VOC solvents;
W _v	=	Mass of total volatiles, in grams;
W _w	=	Mass of water, in grams;
W _{ec}	=	Mass of exempt compounds, in grams;
V	=	Volume of coating, in liters;
V _w	=	Volume of water, in liters; and
V _{ec}	=	Volume of exempt compounds, in liters

- C. The Permittee shall maintain an awareness of the area to ensure that the odor and nuisance air pollutant requirements of Condition III(e)(1)(B) are met.
- D. The Permittee shall monitor the emission point from the spray booth to ensure that the requirements of Condition III(e)(1)(C) are met.
- E. The Permittee shall monitor the safety data sheets or other paint, coating, adhesive, sealant, adhesive primer, or sealant primer specification sheets to ensure compliance with Conditions III(e)(2)(B) and III(e)(2)(E)(i).

- F. The Permittee shall monitor any cleaning and maintenance performed on the water wash booth to meet the requirements of Conditions III(e)(2)(F)(ii).
- G. The Permittee shall monitor the maintenance and operational status of the spray booth and the activities performed in the spray booth and at the facility to ensure compliance with the requirements of Conditions III(e)(2)(C), (D), (F), (G), and (H).

4. Record Keeping Requirements:

The Permittee shall maintain the following records for not less than five years from the date of each record (starting on August 11, 2015, the date the original Chapter 2 permit #6978 was issued). [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

- A. The Permittee shall maintain records of the types of chemical paint strippers used at the facility as well as their chemical make-up to document compliance with Condition III(e)(2)(A).
- B. The Permittee shall maintain records of the quantity, type, and VOC content of all paints and refinishing coatings used at the facility, as applied.
- C. Based on the monitoring and calculations required under Condition III(e)(3)(B) and the records kept under Condition III(e)(4)(B), the Permittee shall determine and keep records of the VOCs emitted from this equipment, in combination with similar VOC emitting equipment at the facility to ensure compliance with Condition III(e)(1)(A).
- D. The Permittee shall maintain records of the type(s) and target hazardous air pollutant (HAP) contents of coatings used in any spray guns to document compliance with Condition III(e)(2)(E)(i).
- E. The Permittee shall maintain records of cleaning and maintenance performed on the water wash booth to document compliance with Condition III(e)(2)(F)(ii).
- F. The Permittee shall maintain records of all maintenance performed on the spray booth.
- G. The Permittee shall maintain records of any deviations from the requirements of Conditions III(e)(1) and (2) of this permit.

5. Reporting Requirements:

None in addition to Condition I(d).

f. Emission Unit SC-1: Donaldson Torit Sawdust Collector for Woodworking Operations

1. Emission Limitations:

- A. Emissions of dust shall be minimized in accordance with the requirements of 20 DCMR 605 and the "Operational Limitations" of this permit.
- B. The emission of fugitive dust from any material handling, screening, crushing, grinding, conveying, mixing, or other industrial-type operation or process is prohibited. [20 DCMR 605.2]
- C. The discharge of total suspended particulate matter into the atmosphere from any process shall not exceed three hundredths (0.03) grains per dry standard cubic foot of the exhaust. [20 DCMR 603.1]
- D. The discharge of total suspended particulate matter from the outlet of the sawdust collector shall not exceed 0.24 pounds per hour. [20 DCMR 603.1 and Appendix 6-1]
- E. Visible emissions shall not be emitted from the outlet of the sawdust collector. [20 DCMR 201 and 20 DCMR 606.1]
- F. 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]

2. Operational Limitations:

- A. All dusty air captured by the dust control system shall be vented through the fabric filter. [20 DCMR 201]
- B. The fabric filter shall maintain a particulate matter control efficiency of at least 99.5% at all times when the sawdust collector is operating. [20 DCMR 201] *Note that compliance with this requirement will be assumed if the manufacture's specifications for the filters being used document that they will meet this standard and all maintenance and operational requirements of the manufacturer's specifications and this permit are being met, unless other credible evidence of a violation is identified.*
- C. The proper operation of the fabric filter shall be demonstrated when the differential pressure across the bags is maintained between 0.6 and 6 inches of water. A magnehelic pressure gauge shall be used to monitor the pressure drop. [20 DCMR 201]

- D. A set of replacement filters and any spare parts for the dust collector recommended by the manufacturer shall be kept on site at all times. [20 DCMR 201]
 - E. The Permittee shall take reasonable precautions to minimize the emission of any fugitive dust into the outdoor atmosphere. [20 DCMR 605.1]
 - F. The sawdust collector shall be operated and maintained in accordance with the recommendations of the equipment manufacturer. [20 DCMR 201]
 - G. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the sawdust collector in a manner consistent with good air pollution control practice 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]
3. Monitoring and Testing Requirements:
- A. The Permittee shall monitor the differential pressure across the fabric filters to ensure compliance with Condition III(f)(2)(C).
 - B. At least once per quarter, during operation of the unit, the Permittee shall conduct visual observations of the emissions from the outlet of the sawdust filter. If no operations occur during a given quarter, this shall be so noted. If visible emissions are observed, prompt action shall be taken to correct the problem. Operations shall not continue (except as necessary for troubleshooting purposes) if such exceedances are observable, until such time as the problem has been addressed and the equipment has been returned to compliance.
 - C. The Permittee shall monitor any odor emitted from the facility and take any actions necessary to ensure compliance with Condition III(f)(1)(F).
 - D. The Permittee shall monitor the conditions at the site and take any actions necessary to ensure compliance with the fugitive dust requirements of Condition III(f)(2)(E).
 - E. The Permittee shall monitor the conditions at the site and take any actions necessary to ensure compliance with the operational requirements of Condition III(f)(2)(G).

4. Record Keeping Requirements:

The following information shall be recorded, and maintained in a log at the facility and made available when requested for a period of not less than five (5) years: [20 DCMR 302.1(c)(2)(B) and 20 DCMR 500.8]

- A. During each day of operation of the equipment, the Permittee shall record in a log the differential pressure reading of the magnehelic pressure gauge at least once each day, during operation of the equipment, to ensure compliance with the operational requirements of Conditions III(f)(2)(B), (C), and (F) of this permit.
- B. The Permittee shall keep a record of the time of operation of the sawdust collector each day. This shall be kept by keeping a log, updated daily, of each start and stop time of the unit.
- C. The Permittee shall keep a record of all deviations from the pressure drop requirements of Condition III(f)(2)(C) and the actions taken to correct each identified deviation.
- D. The Permittee shall maintain a record of all maintenance performed on the unit to document compliance with Condition III(f)(2)(F).
- E. The Permittee shall maintain a copy of the sawdust collector manufacturer's maintenance and operating recommendations at the facility and make such available to the Department upon request.
- F. The Permittee shall maintain a copy of the specifications for the filters used in the sawdust collector to document compliance with Condition III(f)(2)(B).
- G. The Permittee shall keep a record of the results of all visible emissions monitoring performed pursuant to Condition III(f)(3)(B).
- H. Permittee shall keep records of all odors identified pursuant to Condition III(f)(3)(C) and the actions taken to correct them.
- I. The Permittee shall keep records of any fugitive dust exceedances identified pursuant to Condition III(f)(3)(D) or (E) and the actions taken to correct them.

g. Emission Units T-18 and MG-1: Gasoline Storage Tank (3,000 gallon capacity) and Associated Dispensing Equipment

Note that T-18 is a split tank with a 3,000 gallon gasoline partition and a 1,000 gallon diesel partition. Only the gasoline partition is covered by this permit condition. The diesel portion is considered one of the above ground storage tanks listed in Condition IV(d)(4).

1. Operational Limits:

- A. The Permittee must equip this storage tank with a Stage I Vapor Recovery System (VRS) which shall remain operational whenever gasoline is being transferred into the tank. [20 DCMR 704]
- B. The transfer of gasoline from the delivery vessel into the stationary storage container shall occur only if the container is equipped with a submerged-fill pipe and the displaced vapors from the storage container are processed by a system that prevents release to the atmosphere of no less than ninety percent (90%) by weight of organic compounds in the vapor displaced from the stationary container location. [20 DCMR 704.1]
- C. The vapor recovery portion of the Stage I VRS shall include either or both of the following [20 DCMR 704.2]:
 - i. A vapor return line from the storage container to the delivery vessel and a system that will ensure that the vapor return line is connected before gasoline can be transferred into the container; or
 - ii. A refrigeration-condensation system or equivalent designed to recover no less than ninety percent (90%) by weight of the organic compounds in the displaced vapor.
- D. If a vapor-tight return system is used to meet the requirements of Condition (III)(g)(1)(A), the system shall be constructed as to be adapted to retrofit with an absorption system, refrigeration-condensation system, or equivalent vapor removal system. [20 DCMR 704.3]
- E. The operation or maintenance of any delivery vessel, or of any part of any liquid delivery system, or vapor collection or recovery system used or designed to be used in connection with the loading or unloading of the delivery vessel, shall be performed in a manner that is vapor-tight or in a manner so that there is no avoidable visible liquid leakage or liquid spillage. [20 DCMR 704.6]

- F. The storage tank shall only be filled with the use of delivery vessels with posted certificates showing that the vessel passed a leak test within the past year in accordance with 20 DCMR 704.4(b) and (c). [20 DCMR 704.4(f)]
- G. Gasoline throughput shall be maintained below 10,000 gallons every calendar month. [20 DCMR 201]
- H. The Permittee shall not handle or allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following [40 CFR 63.11116(a)]:
 - i. Minimize gasoline spills;
 - ii. Clean up spills as expeditiously as practicable;
 - iii. Cover all open gasoline containers and all gasoline storage fill-pipes with a gasketed seal when not in use; and
 - iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

2. Monitoring and Testing Requirements:

- A. The Permittee shall monitor operation of the equipment to ensure compliance with Condition III(g)(1)(E).
- B. Prior to filling of the tank by a delivery vessel, the Permittee shall take affirmative action to ensure that the delivery vessel has a clear and unequivocal certificate indicating that it has been leak tested within the past year and that the leak test showed compliance with the standards specified in Condition III(g)(1)(F). [20 DCMR 704.4(f)]
- C. The Permittee shall monitor gasoline throughput on a monthly basis and otherwise as necessary to ensure compliance with Condition III(g)(1)(G).

3. Record Keeping and Reporting Requirements:

- A. The Permittee shall maintain copies of the manufacture's specifications and design drawing for the tank and VRS to document compliance with Conditions III (g)(1)(A) through (D).

- B. The Permittee shall maintain records of any leak identified pursuant to the monitoring required by Condition III(g)(2)(A) and the actions taken to correct the identified problem.
- C. The Permittee shall maintain records of each delivery of fuel and documentation that each delivery vehicle was checked to ensure compliance with Condition III(g)(1)(F). The person checking to ensure that an appropriate certificate is posted on the delivery vehicle shall initial and date the record of this check.
- D. The Permittee shall maintain a record of the monthly throughput of the gasoline dispenser and must make these records available within 24 hours of a request by the Department or EPA. [20 DCMR 500.1 and 40 CFR 63.11116(b)]
- h. Emission Unit: NSPS Compression Ignition Internal Combustion Engine (CI-ICE) Powered Emergency Generator Set: One (1) diesel-fired emergency standby generator set (designated EU-23) subject to NSPS Subpart IIII as follows:

Equipment Location (Chapter 2 Permit No.)	Emission Unit Description	Generator Model Number/Engine Model Number
Police Station (7048-SC-0051)	One (1) 250 kWe Kohler generator set with 385 hp John Deere diesel-fired engine (model year 2017/installed 2018)	250REOZJE/ 6090HF484

1. Emissions Limitations

- A. Emissions from this unit shall not exceed those specified in the following table as measured according to the procedures set forth in 40 CFR 89, Subpart E for NMHC, NO_x, and CO and 40 CFR 89.112(c) for PM. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a)-(c)]:

Pollutant Emission Limits (g/kWm-hr)		
NMHC+NO _x	CO	PM
4.0	3.5	0.20

- B. Visible emissions shall not be emitted into the outdoor atmosphere from the 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].

Note that 20 DCMR 606 is subject to an EPA-issued call for a State

Implementation Plan (SIP) revision (known as a "SIP call") requiring the District to revise 20 DCMR 606. See "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction", 80 Fed. Reg. 33840 (June 12, 2015). It is likely that this federal action will result in changes to the requirements of 20 DCMR 606. Any such changes, once finalized in the DCMR, will supersede the language of Condition III(h)(1)(B) as stated above.

- C. In addition to Condition III(h)(1)(B), exhaust opacity, measured and calculated as set forth in 40 CFR 86, Subpart I, shall not exceed [40 CFR 60.4205(b), 40 CFR 60.4202(a), and 40 CFR 89.113]:
 - i. 20 percent during the acceleration mode;
 - ii. 15 percent during the lugging mode;
 - iii. 40 percent during the peaks in either the acceleration or lugging modes. *Note that this condition is streamlined with the requirements of 20 DCMR 606.1.*
- D. 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]

2. Operational Limitations

- A. The emergency generator shall be operated for fewer than 500 hours in any given 12 month period. If operation of 500 hours or more 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. [20 DCMR 201 and 20 DCMR 805.1(c), for history, see also Chapter 2 permit No. 6549]
- B. Except as specified in Condition III(h)(2)(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 in non-emergency situations for a period not to exceed one hundred (100) hours per calendar year as specified in Conditions

III(h)(2)(C)(i) and (ii) below. Any such operation shall be considered as part of the 500 hours allowed under Condition III(h)(2)(A) above. [40 CFR 60.4211(f)]

- i. 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 60.4211(f)(2)(i) and DCMR 201]; and
 - ii. The emergency generator may be operated for up fifty (50) hours per calendar year in non-emergency situations, subject to the following conditions [40 CFR 60.4211(f)(3) and 20 DCMR 201]:
 1. Any such operations shall be counted as part of the 100 hours per calendar year for maintenance and testing as provided in Condition III(h)(2)(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(h)(2)(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 such that the equipment being supported cannot be safely or effectively operated shall be considered non-emergency operation and counted as part of this 50 hour per calendar year allowance.
- D. The emergency generator shall fire only diesel fuel that contains a maximum sulfur content of 15 parts per million (0.0015 percent by weight) and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b)]
- E. The emergency generator shall be operated and maintained in accordance with the recommendations of the equipment manufacturer. [40 CFR 60.4211(a)(1) and 20 DCMR 201]
- F. 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]

- G. At all times, including periods of startup, shutdown, and malfunction, the owner shall, to the extent practicable, maintain and operate the units in a manner consistent with good air pollution control practice 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.

3. 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(h)(2)(A), (B), (C), and (F).
- B. The Permittee shall monitor and/or test the diesel fuel used for this unit as necessary in accordance with Condition I(d)(2)(B)(ii) to ensure compliance with Condition III(h)(2)(D). [20 DCMR 500.2, 20 DCMR 502.3 and 502.6]
- C. In order to ensure compliance with Condition III(h)(2)(A), the Permittee shall monitor the total hours of operation each month with the use of a properly functioning, non-resettable hour metering device. [40 CFR 60.4209(a) and 40 CFR 60.4214(b)]
- 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]

4. Record Keeping Requirements:

- A. The following information shall be recorded, initialed (except records generated automatically by an electronic system), and maintained in a log at the facility (or readily accessible electronically from the facility) for a period not less than five (5) years from the date the information is obtained [20 DCMR 302.1(c)(2)(B), 20 DCMR 500.8, and 40 CFR 60.4214(b)]:
- i. The date, time, duration, and reason for each start-up of each emergency generator including the following specific information:
1. If the unit is operated in non-emergency situations pursuant to Condition III(h)(2)(C)(ii), the specific purpose for each operation period must be recorded; and
 2. If the unit is operated for emergency purposes, what classified the operation as emergency.
- ii. 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;

- iii. The total hours of operation for maintenance checks and readiness and non-emergency operation testing pursuant to Condition III(h)(2)(C) each month, and totaled for each calendar year by January 15 of each year for the previous calendar year;
 - iv. The total hours of operation each calendar year for non-emergency purposes pursuant to Condition III(h)(2)(C)(ii);
 - v. Records of the maintenance performed on the unit *[Note that these records must be sufficient such that the Permittee is complying with the requirements of Condition III(h)(2)(E)]*;
 - vi. Records of the results of any visible emissions monitoring performed;
 - vii. Records of the occurrence and duration of each malfunction of operation;
 - viii. Records of the actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation; and
 - ix. Records of fuel usage for the unit on a monthly and annual basis.
- B. The Permittee shall maintain a copy of the emergency generator's manufacturer's maintenance and operating recommendations at the facility. [20 DCMR 501]
- C. The Permittee shall comply with the requirements of Condition I(d)(2)(B)(ii) to ensure compliance with Condition III(h)(2)(D) of this permit.
- D. The Permittee shall maintain a copy of the EPA Certificate of Conformity at the facility (or at an electronic location readily accessible from the facility) at all times. [20 DCMR 500.1 and 40 CFR 60.4214(a)(2)(iii)]

IV. Miscellaneous/Insignificant Activities

- a. The Department does not consider the "miscellaneous activities" (also commonly known as "insignificant activities") listed in Condition IV(d) to be significant sources. However, they are subject to the General Permit Requirements (Condition I) and Facility-Wide Permit Requirements (Condition II) of this permit as well as the conditions specified below for each unit type. [See EPA White Paper 1, Wegman, July 10, 1995]
- b. Emissions from the miscellaneous activities listed in Condition IV(d) must be reasonably estimated, and the Permittee shall report the estimated emissions, as well as the specifics of the method(s) of estimation, in the annual emission statement required by Condition I(d)(2)(C) of this permit. [20 DCMR 500]
- c. The Permittee shall maintain an inventory of the miscellaneous/insignificant activities listed in Condition IV of this permit and shall submit a current copy of this inventory to the Department annually with the annual Title V certification report.
- d. The following activities are subject to Condition IV(a), (b), and (c) as well as the conditions specified below (where applicable):

1. Laboratory fume hoods - the fume hoods operated by the Permittee shall meet the following requirements:

A. Emission Limitations:

No person shall discharge into the atmosphere in excess of fifteen (15) pounds of VOC emissions in any one (1) day, nor more than three pounds (3 lb.) in any one (1) hour, from any combination of articles, machines, units, equipment, or other contrivances at a facility, unless the uncontrolled VOC emissions are reduced by at least ninety percent (90%) overall capture and control efficiency. [20 DCMR 700.2]

B. Monitoring and Record Keeping:

- i. Unless another monitoring and record keeping approach is approved by the Department, the Permittee shall maintain daily records of solvent usage in the laboratory fume hoods, whenever operating, and shall use these data to determine the daily VOC emissions from the fume hoods. The Permittee shall assume that all all solvents used are emitted. Such records shall be made available to the Department upon verbal or written request. These records shall be totaled for purposes of reporting annual emissions in accordance with Condition IV(b).
- ii. The Permittee shall maintain continually updated records of all solvent purchases and all solvents in storage for use in the laboratory hoods.

- iii. The Permittee shall maintain an inventory of all fume hoods and shall submit a copy of the inventory to the Department annually with the annual Title V certification report.
2. One (1) ethylene oxide sterilizer located in the Genetics building;
3. Air conditioning and refrigeration operations [except as covered by Condition II(l) of this permit], including related cooling towers;
4. Twelve (12) aboveground storage tanks for diesel which range between 60 gallons and 5,000 gallons;
5. Welding operations;
6. Fuel burning equipment (as defined in 20 DCMR 199) with heat input ratings less than 5 MMBTU per hour and burning natural gas only including: hot water heaters (as defined at 40 CFR 63.11237) with heat input ratings less than 1.6 MMBTU/hr, small boilers with heat input ratings less than five (5) MMBTU/hr and burning natural gas only, heating, air conditioning, and refrigeration operations [except as covered by Condition II(l) of this permit] including natural gas fired space heaters/furnaces, packaged HVAC units with heat input ratings less than 1.6 MMBTU/hr, and natural gas fired kitchen equipment including dining facilities. These small fuel burning units shall meet the following requirements:

A. Emission Limitations:

- i. Particulate matter emissions from each unit with a heat input rating less than or equal to 3.5 MMBTU/hr shall not exceed 0.23 lbs per MMBTU. Note that the Permittee is deemed to have complied with this requirement by complying with the operational limit specified in Condition IV(d)(6)(B)(i) below, unless other credible evidence of a violation of this limit is identified. [20 DCMR 600.1]
- ii. Particulate matter emissions from each unit with a heat input rating greater than 3.5 MMBTU/hr and less than 5 MMBTU/hr shall determine its particulate matter limit (to the nearest hundredth of a pound per MMBTU) from the following equation:

$$E = 0.17455 \times H^{-0.23522}$$

Where:

E = the allowable emissions in pounds per MMBTU of heat input and
H = the heat input of the unit in MMBTU/hr

Note that the Permittee is deemed to have complied with this requirement by complying with the operational limit specified in Condition IV(d)(6)(B)(i) below, unless other credible evidence of a violation of this limit is identified. [20 DCMR 600.1]

B. Operational Limitations:

- i. The equipment shall burn only natural gas. [20 DCMR 201]
- ii. The fuel burning equipment shall be operated at all times in a manner consistent with the manufacturer's specifications for the equipment. [20 DCMR 201.1]

C. Monitoring and Testing Requirements:

- i. The Department reserves the right to require the Permittee to conduct performance tests on any or all of these units for any reasonable purpose, in accordance with Condition I(a)(6). If such testing is required, the Permittee shall furnish the Department with a written report of the results of such performance tests in accordance with the following requirements [20 DCMR 502]:
 1. One (1) original 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
 2. The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall finalize the test date with the assigned inspector in the Permitting and Enforcement Branch. The Department must have the opportunity to observe the test for the results to be considered for acceptance.
 3. The final results of the testing shall be submitted to the Department within sixty (60) days of the test completion. One (1) original test report shall be submitted to the address in Condition IV(d)(6)(C)(i)(1) above.
 4. 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:

- a. A statement that the Permittee has reviewed the report from the emissions testing firm and agrees with the findings.
- b. Permit number(s) and condition(s) which are the basis for the compliance evaluation.
- c. Summary of results with respect to each permit condition.
- d. Statements of compliance or non-compliance with each permit condition.

5. The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the Permittee shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.

- ii. The Permittee shall monitor fuel use to collect data on the quantities of fuel used.

D. Record Keeping and Reporting Requirements:

- i. The Permittee shall keep records of the results of all emissions testing required for the boilers pursuant to Conditions IV(d)(6)(C)(i) and I(a)(6) in accordance with the requirements specified in Condition I(c).
- ii. The Permittee shall maintain records of the amount of fuel used in each unit each month. Note that where multiple units of this type are served by a single fuel meter, fuel usage may be aggregated where appropriate. These data shall be maintained in a rolling twelve month sum format.

V. Permit Shield

No permit shield is granted. [20 DCMR 302.6]

VI. Compliance Schedule

- a. The Permittee shall continue to comply with all applicable requirements. [20 DCMR 301.3(h)(3)(A)]
- b. The Permittee shall meet, in a timely manner, all applicable requirements that become effective during the term of this permit, including, but not limited to, any new air quality

regulations and any specific compliance schedules adopted in response to any enforcement action taken against the Permittee by the Department or the U.S. EPA. [20 DCMR 301.3(h)(3)(B)]

