Facility DEC ID: 2620200044

PERMIT Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 2-6202-00044/00004

Effective Date: 06/21/2018 Expiration Date: 06/20/2028

Permit Issued To:CITY UNIVERSITY OF NEW YORK

205 E 42nd St

NEW YORK, NY 10017-5773

Contact: HOWARD N APSAN

CUNY DIRECTOR OF ENVIRONM HEALTH & SAFETY

205 E 42ND ST

NEW YORK, NY 10017

(646) 664-2854

Facility: CITY COLLEGE OF NEW YORK

160 CONVENT AVE NEW YORK, NY 10031

Contact: RICHARD BELGRAVE

CUNY DIRECTOR OF ENVIRONM HEALTH & SAFETY

160 CONVENT AVE COMPTON GOETHALS 04

NEW YORK, NY 10031-9101

(212) 650-5085

Description:

PERMIT DESCRIPTION City College of New York DEC ID # 2-6202-00044/00004 (Ren #1)

Application for renewal of Air State Facility.

The Air State Facility permit application renewal contains updates to equipment information that became available since the last modification in 2011, updates to reflect emission sources that have been removed from service, and the addition of a new emergency generator, as follows:

- 1. Removal of Marshak Boiler #1 (Emission Source 00J01) from service.
- 2. Removal of Process FO2, fuel oil firing by Marshack Boilers #2 and #3 (fuel oil tanks were closed in place).
- 3. Update the name of the Science Building to Center for Discovery and Innovation (CDI).

DEC Permit Conditions Renewal 1/FINAL



- 4. Update the maximum heat input capacity of the two (2) CDI boilers in Emission Unit U-00004 from 36.2 MM Btu/hr, which was based on conceptual design, to the actual heat capacity of 34.0 MM Btu/hr, and adding the manufacturer's name and model information.
- 5. For the two (2) emergency generator engines in Emission Unit U-00005, adding the manufacturer's name, model, cylinder, and displacement information, which were not known at the time the Air State Facility permit was modified.
- 6. Addition of a new 80 kW exempt generator (Emission Source ENG03) in new Emission Unit U-00006 that has been installed at Steinman Hall but has not yet been started up.
- 7. Update emission inventory.

The City College of New York is located at 160 Convent Ave in Manhattan, New York. The City College is an academic institution. The facility operates several boilers and back-up emergency generators. The facility has the following five (5) emission Units:

Emission Unit U-00001 consists of five dual-fuel boilers, identified as Emission Sources NAC01, NAC02, NAC03, NAC04 & NAC05 located at the North Academic Center (NAC). These five boilers are used to provide steam for heat, hot water, and steam-driven air conditioning systems. Emission Sources NAC02 and NAC03 have a maximum heat input ratings of 99 MMBtu/hr each, Emission Source NAC04 has a maximum heat input ratings of 65 MMBtu/hr, Emission Source NAC01 has a maximum heat input ratings of 61 MMBtu/hr, and Emission Source NAC05 has a maximum heat input ratings of 25 MMBtu/hr. Emission Sources NAC02 and NAC03 are equipped with Todd V545GOXXX Low NOx burners, and Emission Source NAC04 is equipped with a Todd V485GOXXX Low NOx burner. All five boilers fire natural gas (Process NG1) or #2 fuel oil (Process FO1). Emissions from the boilers exhaust through a common stack identified as Emission Point 00001.

Emission Unit U-00002 consists of two natural gas-fired (Process NG2) boilers, identified as Boilers #2 & #3 (Emission Sources 00J02 & 00J03; respectively). Each of these two boilers is equipped with Gordon-Piatt FL18.2-GO-300 standard burners with maximum heat input ratings of 29.5 MM Btu/hr. These two boilers are used to provide steam for heat and hot water, and are located in Marshak Science Building. These two boilers fire natural gas (Process NG2) only. The Marshak Boilers #2 & #3 provide backup heat and steam to the Marshak Science Building as needed to supplement the NAC (North Academic Center) boilers in Emission Unit U-00001). Emissions from these three boilers exhaust through a common stack identified as Emission Point 00002.



Boiler #1 has been removed from service on 7/31/2017 from the Marshak Science Building.

Emission Unit U-00004 consists of two 34.0 MM Btu/hr Unilux Model ZF 3000HS each boilers (Emission Sources SCIB1 & SCIB2) in the City College of New York (CCNY) Center for Discovery and Innovation Building (CDI), formerly known as the Science Building. The boilers provide heat for building humidification, and intermittent use in a new vivarium. The heat input capacity is 34.0 MM Btu/hr for each boiler. These two boilers burn only natural gas (Process NG4). The flue gases generated from both boilers vent to the atmosphere via a common stack, identified as Emission Point 00004.

The two CCNY Center for Discovery and Innovation Building boilers are subject to 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The monthly fuel use recordkeeping requirement that applies to the proposed two boilers (Emission Sources SCIB1 & SCIB2), 40 CFR Section 60.48c(g)(2) also applies to the following existing NSPS boilers: Emission Unit U-00001, Emission Sources NAC01 & NAC05, and Emission Unit U-00002 Emission Sources 00J02 and 00J03.

Emission Unit U-00005 consists of two 2,000 KW Caterpillar Model 3516C each exempt diesel fuel back-up emergency generators, identified as Emission Sources GEN01 & GEN02. These two engines will burn only diesel fuel (Process GEN). Each generator/engine will exhaust to its own separate individual stack. The flue gases generated from Emission Source GEN01 will vent to the atmosphere via a stack identified as Emission point 00005, and the flue gases generated from Emission Source GEN02 will vent to the atmosphere via a stack identified as Emission point 00006.

The engines associated with these two generators will be subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary compression Ignition Internal Combustion Engines, and 40 CFR Part 63, subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These two emergency generators are exempt from permitting in accordance with 6 NYCRR 201-3.1(b) and 3.2(c)(6).

These two back-up diesel emergency generators burn ultra low sulfur fuel with maximum sulfur content of 15 ppm, in accordance with 40 CFR 60.4207(b) and 40 CFR 80.510(b). Each of the two emergency generators is 2,000 KW (2,644 HP). Each of the 16 cylinders displacement is 4.3 liters for a total of 69 liters per engine.

The two 2,000 KW each exempt emergency generators (Emission Sources GEN01 & GEN02) in Emission Unit U-00005 at the Center for Discovery and Innovation Building (CDI), formerly known as the Science Building will comply with the EPA standards that apply at the time of purchase. It is assumed that the generators are 2011

or later models, and they meet certification standards in 40 CFR 89.113 (in accordance with 40 CFR 60.4202(a)(2)).

Emission Unit U-00006 consists of an 80 kW exempt diesel fuel back-up emergency generator, identified as Emission Source ENG03 at the Steinman Hall. The engine will burn only diesel fuel oil (Process EG3). The flue gases generated from Emission Source ENG03 will vent to Emission Point 00007.

The engine associated with this generator will be subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Compression Ignition Internal Combustion Engines, and 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Reciprocating Internal Combustion Engines. However, the engine is exempt from permitting in accordance with 6 NYCRR 201-3.1 (b).

The back-up diesel emergency generator will burn ultra-low sulfur fuel oil with a maximum sulfur content of 15 ppm (or 0.0015 % by weight) in accordance with 40 CFR 60.4207 (b) and 80.510 (b). The Model Year 2012 engine has a total cylinder displacement of less than 10 liters and will comply with the EPA standards that applied at the time of purchase.

The facility is subject to the provisions of State Facility specified under 6NYCRR Part 201-7.2. The facility operates under a facility-wide NOx cap of 24.5 tons/yr. Records demonstrating compliance with this cap will be kept in accordance with the permit special conditions.

The Air State Facility permit contains a listing of the applicable federal, state, and compliance monitoring requirements for the facility. In addition, the engines associated with the generators will be subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary compression Ignition Internal Combustion Engines, and 40 CFR Part 63, subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These three emergency generators (Emission Sources GEN01, GEN02 & ENG03) are exempt from permitting in accordance with 6 NYCRR 201-3.1(b) and 3.2(c)(6), but are subject to the following:

1. Operating Requirements:

a. The Permittee shall operate and maintain the engine over its entire life according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer as per 40 CFR 60.4206, 4211(a)]. A copy of the instructions or procedures shall be kept onsite and made available to NYSDEC upon request.

b. The Permittee shall only change those engine settings that are permitted by the manufacturer as per 40 CFR 60.4211(a).



c. The Permittee shall meet the requirements of 40 CFR parts 89 as per 40 CFR 60.4211(a).

d. Fuel Requirements

After October 1, 2010, the engine shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b):

- (I) Sulfur content: 15 ppm maximum; and
- (II) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent as per 40 CFR 60.4207(b).
- e. Additional Emergency Engine Requirements As per 40 CFR 60.4211(e), 60.4209(a):
- (1) The Permittee shall install a non-resettable hour meter prior to startup of the engine.
- (2) Emergency engines 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, or the insurance company associated with the engine.
- (3) The Permittee shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to NYSDEC upon request.
- (4) The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year.
- (5) The Permittee shall not operate emergency engines except for emergency purposes, and maintenance and testing.
- (6) The Permittee shall maintain monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.
- 3. Monitoring and Record Keeping Requirements
- a. The Permittee shall comply by purchasing an engine certified to the emission standards in this permit. The engine shall be installed and configured according to the manufacturer's specifications as per 40 CFR 4211(c).



- b. The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that the engine complies with the applicable standards in this Permit, and shall make the documentation available to NYSDEC upon request.
- c. The Permittee shall keep records of fuel supplier specifications. The specifications shall contain information regarding the name of fuel supplier, sulfur content, and cetane index or aromatic content in the fuel. These records shall be made available to NYSDEC upon request.

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4202(a)(2), 60.4206, 60.4207(a) & (b), 60.4209(a), 60.4211(a), (c), & (e), 89.112, and 89.113.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator:	STEPHEN A WATTS 47-40 21ST ST LONG ISLAND CITY, NY 11101-5401
Authorized Signature:	Date:/



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

Facility Inspection by the Department Relationship of this Permit to Other Department Orders and Determinations

Applications for permit renewals, modifications and transfers
Permit modifications, suspensions or revocations by the Department
Facility Level

Submission of application for permit modification or renewal - REGION 2 HEADQUARTERS



Facility DEC ID: 2620200044

DEC GENERAL CONDITIONS **** General Provisions **** GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

Item 1.1:

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item3.2:

The permittee must submit a renewal application at least 180 days before the expiration of permits for Title V and State Facility Permits.

Item 3.3

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit modifications, suspensions or revocations by the Department Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**** Facility Level ****

Condition 5: Submission of application for permit modification or renewal - REGION 2
HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator Region 2 Headquarters Division of Environmental Permits 1 Hunters Point Plaza, 4740 21st Street Long Island City, NY 11101-5407 (718) 482-4997



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Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY

PERMIT

IDENTIFICATION INFORMATION

Permit Issued To:CITY UNIVERSITY OF NEW YORK

205 E 42nd St

NEW YORK, NY 10017-5773

Facility: CITY COLLEGE OF NEW YORK

160 CONVENT AVE NEW YORK, NY 10031

Authorized Activity By Standard Industrial Classification Code:

8221 - COLLEGES AND UNIVERSITIES, NEC

Permit Effective Date: 06/21/2018 Permit Expiration Date: 06/20/2028



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LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS Facility Level

- 1 6 NYCRR 201-3.2 (c): Compliance Demonstration
- 2 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- *3 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *4 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 5 6 NYCRR 211.1: Air pollution prohibited
- 6 6 NYCRR 227-1.3: Compliance Demonstration
- 7 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 8 40CFR 60.7(a), NSPS Subpart A: Date of construction notification If a COM is not used.
- 9 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 10 40CFR 60.7(d), NSPS Subpart A: Excess emissions report.
- 11 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 12 40CFR 60.8(b), NSPS Subpart A: Performance test methods.
- 13 40CFR 60.9, NSPS Subpart A: Availability of information.
- 14 40CFR 60.11, NSPS Subpart A: Opacity standard compliance testing.
- 15 40CFR 60.12, NSPS Subpart A: Circumvention.
- 16 40CFR 60.14, NSPS Subpart A: Modifications.
- 17 40CFR 60.15, NSPS Subpart A: Reconstruction
- 18 40CFR 60.40c(a), NSPS Subpart Dc: Compliance Demonstration
- 19 40CFR 60.48c(g)(2), NSPS Subpart Dc: Alternative recordkeeping
- 20 40CFR 60.4202(a)(2), NSPS Subpart IIII: Compliance Demonstration
- 21 40CFR 60.4205(b), NSPS Subpart IIII: Compliance Demonstration
- 22 40CFR 60.4206, NSPS Subpart IIII: Duration of emission standards for new stationary compression ignition IC engines
- 23 40CFR 60.4208, NSPS Subpart IIII: Stationary CI-IC Engines Installation and importing deadlines for engines produced in the previous model year
- 24 40CFR 60.4211(a), NSPS Subpart IIII: Compliance Demonstration
- 25 40CFR 60.4211(c), NSPS Subpart IIII: Compliance Demonstration
- 26 40CFR 60.4211(e), NSPS Subpart IIII: Compliance demonstration
- 27 40CFR 60.4211(f), NSPS Subpart IIII: Compliance Demonstration
- 28 40CFR 60.4214, NSPS Subpart IIII: Compliance Demonstration
- 29 40CFR 60.4218, NSPS Subpart IIII: General Provisions
- 30 40CFR 80.510(b), Subpart I: Compliance Demonstration
- 31 40CFR 89.112, Subpart B: Compliance Demonstration
- 32 40CFR 89.112, Subpart B: Compliance Demonstration
- 33 40CFR 89.112, Subpart B: Compliance Demonstration
- 34 40CFR 89.112, Subpart B: Compliance Demonstration
- 35 40CFR 89.112, Subpart B: Compliance Demonstration
- 36 40CFR 89.112, Subpart B: Compliance Demonstration
- 37 40CFR 89.112, Subpart B: Compliance Demonstration 38 40CFR 89.112, Subpart B: Compliance Demonstration
- 39 40CFR 89.113, Subpart B: Compliance Demonstration

Emission Unit Level

EU=U-00001,Proc=FO1,ES=NAC01



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40 40CFR 60.43c(c), NSPS Subpart Dc: Compliance Demonstration

EU=U-00001,EP=00001

41 6 NYCRR 227-1.2 (a) (1): Compliance Demonstration

EU=U-00001,EP=00001,Proc=FO1,ES=NAC01

- 42 40CFR 60.42c(h), NSPS Subpart Dc: Exemption from the averaging period.
- 43 40CFR 60.42c(i), NSPS Subpart Dc: Enforceability
- 44 40CFR 60.44c(h), NSPS Subpart Dc: Alternative compliance methods for sulfur dioxide.
- 45 40CFR 60.48c(e)(1), NSPS Subpart Dc: Compliance Demonstration
- 46 40CFR 60.48c(f)(1), NSPS Subpart Dc: Compliance Demonstration

EU=U-00002

- 47 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Demonstration
- 48 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Demonstration

EU=U-00004,EP=00004,Proc=NG4,ES=SCIB2

- 49 40CFR 60, NSPS Subpart A: Applicability of General Provisions of 40 CFR 60 Subpart A
- 50 40CFR 60.48c(g), NSPS Subpart Dc: Compliance Demonstration
- 51 40CFR 60.4207(b), NSPS Subpart IIII: Compliance Demonstration
- 52 40CFR 60.4207(b), NSPS Subpart IIII: Compliance Demonstration
- 53 40CFR 60.4207(b), NSPS Subpart IIII: Compliance Demonstration
- 54 40CFR 60.4209(a), NSPS Subpart IIII: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS Facility Level

- 55 ECL 19-0301: Contaminant List
- 56 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 57 6 NYCRR Subpart 201-5: Emission Unit Definition
- 58 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 59 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 60 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

- 61 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 62 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

EU=U-00001,EP=00001

- 63 6 NYCRR 227-1.4: Compliance Demonstration
- 64 6 NYCRR 227-1.4 (a): Compliance Demonstration

NOTE: * preceding the condition number indicates capping.



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FEDERALLY ENFORCEABLE CONDITIONS **** Facility Level ****

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: Maintenance of Equipment - 6 NYCRR 200.7

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,



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required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

- (a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.
- (b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Recycling and Salvage - 6 NYCRR 201-1.7

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item F: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item G: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item H: Proof of Eligibility for Sources Defined as Trivial



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Activities - 6 NYCRR 201-3.3 (a)

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: Required Emission Tests - 6 NYCRR 202-1.1

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item J: Open Fires Prohibitions - 6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item K: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item L: Federally Enforceable Requirements - 40 CFR 70.6 (b)



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All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS The following conditions are federally enforceable.

Condition 1: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 6 NYCRR 201-3.2 (c)

Item 1.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 1.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The two new 2,000 KW each (Emission Sources GEN01 & GEN02) and the new 80 kW (Emission Source ENG03) diesel fuel emergency generators are exempt from NYSDEC permitting in accordance with 6 NYCRR 201-3.1(b) and 3.2(c)(6).

6 NYCRR 201-3.2(c)(6):

Emergency power generating stationary internal combustion

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engines as defined in 200.1(cq) and engine test cells at engine manufacturing facilities that are utilized for research and development, reliability performance testing, or quality assurance performance testing.

6 NYCRR 200.1(cq):

Emergency power generating stationary internal combustion engine. A stationary internal combustion engine that operates as a mechanical or electrical power source only when the usual supply of power is unavailable, and operates for no more than 500 hours per year. The 500 hours of annual operation for the engine include operation during emergency situations, routine maintenance, and routine exercising (for example, test firing the engine for one hour a week to ensure reliability). A stationary internal combustion engine used for peak shaving generation is not an emergency power generating stationary internal combustion engine.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 500 hours Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2019.

Subsequent reports are due every 12 calendar month(s).

Condition 2: Facility Permissible Emissions

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 2.1:

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following

Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 0NY210-00-0 PTE: 49,000 pounds per year

Name: OXIDES OF NITROGEN

Condition 3: Capping Monitoring Condition

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 3.1:

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would

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otherwise be subject to:

6 NYCRR Subpart 201-6 6 NYCRR Subpart 231-2

Item 3.2:

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3.3:

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 3.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 3.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 3.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The facility-wide NOx (oxides of nitrogen) emissions are capped at 24.5 tons per year on a rolling 12-month basis.

The owner or operator shall maintain a record of the quantity of each fuel fired at the facility. Also, the owner or operator shall calculate the annual NOx emissions (based on the fuel quantity) using the following approved NYSDEC emission factors and formula:



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R(0.075) + D(0.02) + G(100) + E1(28.2) + E2(28.2) +E3(0.71) + E(0.44) + N(3400) < 45,000 lbs/yr of Oxides of

Nitrogen emissions.

Where:

R = 12-month rolling total of residual oil fired (from boilers) in gals/yr

D = 12-month rolling total of distillate oil fired (from boilers) in gals/yr

G = 12-month rolling total of natural gas fired (from boilers) in MMSCF/yr

E1 = 12-month rolling total operating hours on distillate oil firing for Engine 1 - Emission Source GEN01 in hrs/yr

 $E2 = 12 \hbox{-month rolling total operating hours on} \\ distillate oil firing for Engine 2 - Emission Source GEN02 \\ in hrs/yr$

E3 = 12-month rolling total operating hours on distillate oil firing for engine GEN03 in lbs/yr

of distillate oil fired (from engine ENG03) in gals/yr E=12-month rolling total of distillate oil firing (from non-NSPS engines) in gals/yr N=12-month rolling total of natural gas fired (from engines) in MMSCF/yr

The NOx emission factors units for GEN01, GEN02 and ENG03 are in grams/KW-hr (6.4 grams/KW-hr for E1, 6.4 grams/KW-hr for E2 and 4.0 grams/KW-hr for E3).

The 6.4 gm/KW-hr is equivalent to 28.2 lb/hr and the 4.0 gm/KW-hr is equivalent to 0.71 lb/hr.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 24.5 tons per year Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2019.

Subsequent reports are due every 12 calendar month(s).

Condition 4: Capping Monitoring Condition

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 4.1:

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:



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6 NYCRR Subpart 231-2

Item 4.2:

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 4.3:

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 4.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 4.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 4.6:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB1

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB2

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN02

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 4.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

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Monitoring Description:

In order to avoid triggering New Source Review (6 NYCRR 231-2), the facility is limiting the NOx emissions from the two new boilers (Emission Sources SCIB1 & SCIB2) in Emission Unit U-00004 and from the two emergency engines (Emission Sources GEN01 & GEN02) in Emission Unit U-00005 to 24.5 tons per year on a 12-month basis. In addition the facility-wide NOx (oxides of nitrogen) emissions are capped at 24.5 tons per year on a rolling 12-month basis.

The owner or operator shall maintain a record of the quantity of each fuel fired in the two new boilers and operating hours for the two new emergency engines at the facility. Also, the owner or operator shall calculate the annual NOx emissions (based on the fuel quantity and engine operating hours) using the following approved NYSDEC emission factors and formula:

G1(100) + G2(100) + E1(28.2) + E2(28.2) < 45,000 lbs/yr of Oxides of Nitrogen emissions.

Where:

G1 = 12-month rolling total of natural gas fired (from Boiler 1 - Emission Source SCIB1) in MMSCF/yr G2 = 12-month rolling total of natural gas fired (from Boiler 2 - Emission Source SCIB2) in MMSCF/yr E1 = 12-month rolling total operating hours on distillate oil firing for Engine 1 - Emission Source GEN01 in hrs/yr

E2 = 12-month rolling total operating hours on distillate oil firing for Engine 2 - Emission Source GEN02 in hrs/yr

The NOx emission factors units for GEN01 and GEN02 are in grams/KW-hr (6.4 grams/KW-hr for E1 and 6.4 grams/KW-hr for E2).

The 6.4 gm/KW-hr is equivalent to 28.2 lb/hr.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 24.5 tons per year Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2019.

Subsequent reports are due every 12 calendar month(s).

Condition 5: Air pollution prohibited

Effective between the dates of 06/21/2018 and 06/20/2028



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Applicable Federal Requirement: 6 NYCRR 211.1

Item 5.1:

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

Condition 6: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 6 NYCRR 227-1.3

Item 6.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Operators of oil-fired boilers which are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

- 1) Observe the stack for each boiler which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).
- 2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:
 - date and time of day
 - observer's name
 - identity of emission point
 - weather condition
 - was a plume observed?

Inclement weather conditions shall be recorded for those days when observations are prohibited. This logbook must be retained at the facility for five (5) years after the date of the last entry.



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3) If the operator observes any visible emissions (other than steam - see below) two consecutive days firing oil (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

** NOTE ** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary, however, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Monitoring Frequency: DAILY Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 10/30/2018. Subsequent reports are due every 6 calendar month(s).

Condition 7: EPA Region 2 address.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4, NSPS Subpart A

Item 7.1:

All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the following address:

Director, Division of Enforcement and Compliance Assistance USEPA Region 2 290 Broadway, 21st Floor New York, NY 10007-1886

Copies of all correspondence to the administrator pursuant to this part shall also be submitted to the NYSDEC Regional Office issuing this permit (see address at the beginning of this permit) and to the following address:

NYSDEC Bureau of Quality Assurance



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625 Broadway Albany, NY 12233-3258

Condition 8: Date of construction notification - If a COM is not used.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.7(a), NSPS Subpart A

Item 8.1:

Any owner or operator subject to this part shall furnish the Administrator with the following information:

- 1) a notification of the date construction or reconstruction commenced, post marked no later than 30 days after such date;
- 3) a notification of the actual date of initial start up, post marked within 15 days after such date;
- 4) a notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless the change is specifically exempted under this part. The notice shall be post marked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capability of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional information regarding the change;
- 5) a notification of the date upon which the demonstration of continuous monitoring system performance commences, post marked not less than 30 days prior to such date;
- 6) a notification of the anticipated date for conducting the opacity observations, post marked not less than 30 days prior to such date.

Condition 9: Recordkeeping requirements.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.7(b), NSPS Subpart A

Item 9.1:

Affected owners or operators shall maintain records of occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

Condition 10: Excess emissions report.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.7(d), NSPS Subpart A

Item 10.1:

A summary report form, for each pollutant monitored, shall be sent to the Administrator in the form prescribed in Figure 1 of 40 CFR Part 60.7(d).

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Condition 11: Performance testing timeline.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.8(a), NSPS Subpart A

Item 11.1:

Within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup of the facility, the owner or operator of the facility shall conduct performance testing and provide the results of such tests, in a written report, to the Administrator.

Condition 12: Performance test methods.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.8(b), NSPS Subpart A

Item 12.1:

Performance testing shall be conducted in accordance with the methods and procedures prescribed in 40 CFR 60 or by alternative methods and procedures approved by the Administrator.

Condition 13: Availability of information.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.9, NSPS Subpart A

Item 13.1:

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by 40 CFR Part 2.

Condition 14: Opacity standard compliance testing.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.11, NSPS Subpart A

Item 14.1:

The following conditions shall be used to determine compliance with the opacity standards:

- 1) observations shall be conducted in accordance with Reference Method 9, in Appendix A of 40 CFR Part 60(or an equivalent method approved by the Administrator including continuous opacity monitors);
- 2) the opacity standards apply at all times except during periods of start up, shutdown, and malfunction; and
 - 3) all other applicable conditions cited in section 60.11 of this part.

Condition 15: Circumvention.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.12, NSPS Subpart A



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Item 15.1:

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

Condition 16: Modifications.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.14, NSPS Subpart A

Item 16.1:

Within 180 days of the completion of any physical or operational change (as defined in section 60.14), compliance with the applicable standards must be achieved.

Condition 17: Reconstruction

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.15, NSPS Subpart A

Item 17.1:

The following shall be submitted to the Administrator prior to reconstruction (as defined in section 60.15):

- 1) a notice of intent to reconstruct 60 days prior to the action;
- 2) name and address of the owner or operator;
- 3) the location of the existing facility;
- 4) a brief description of the existing facility and the components to be replaced;
- 5) a description of the existing air pollution control equipment and the proposed air pollution control equipment;
- 6) an estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility;
- 7) the estimated life of the facility after the replacements; and
- 8) a discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

Condition 18: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.40c(a), NSPS Subpart Dc

Item 18.1:

The Compliance Demonstration activity will be performed for the facility:



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The Compliance Demonstration applies to:

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB1

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB2

Item 18.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units applies to each steam generating unit for which construction has commenced after June 9, 1989 and has a maximum design heat input capacity of greater than or equal to 10 million Btu/hour and less than 100 million Btu/hour.

This condition applies to the two 34.0 MM Btu/hr each boilers, identified as Emission Sources SCIB1 & SCIB2 in Emission Unit U-00004 at the City College of New York (CCNY) Center for Discovery and Innovation (CDI) Building. These two boilers burn only natural gas (Process NG4). The flue gases generated from both boilers vent to the atmosphere via a common stack, identified as Emission Point 00004.

These two boilers are subject to the notification and recordkeeping requirements of this subpart.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 19: Alternative recordkeeping

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.48c(g)(2), NSPS Subpart Dc

Item 19.1:

This Condition applies to:

Emission Unit: U00001 Emission Point: 00001 Process: FO1 Emission Source: NAC01

Emission Unit: U00001 Emission Point: 00001 Process: FO1 Emission Source: NAC05

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Emission Unit: U00001 Emission Point: 00001 Process: NG1

Emission Source: NAC01

Emission Unit: U00001 Emission Point: 00001 Process: NG1 **Emission Source: NAC05**

Emission Unit: U00002 Emission Point: 00002 Process: NG2 Emission Source: 00J02

Emission Unit: U00002 Emission Point: 00002 Process: NG2 Emission Source: 00J03

Emission Unit: U00004 Emission Point: 00004 Process: NG4 **Emission Source: SCIB1**

Emission Unit: U00004 Emission Point: 00004 Process: NG4 **Emission Source: SCIB2**

Item 19.2:

As an alternative to meeting the requirements of 40 CFR 60.48c(g)(1), the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 40 CFR 60.48c(f) to demonstrate compliance with the SO2standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

Condition 20: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.4202(a)(2), NSPS Subpart

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Item 20.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN **Emission Source: GEN01**

Emission Unit: U-00005 Emission Point: 00006 Process: GEN **Emission Source: GEN02**

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 **Emission Source: ENG03**

Item 20.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

§ 60.4202(a)(2): Emission standards for emergency engines for a stationary CI internal combustion engine manufacturer:

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(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 21: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.4205(b), NSPS Subpart IIII

Item 21.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 21.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of a 2007 model year or later emergency stationary compression ignition (CI) internal combustion engine with a maximum engine power less than or equal to 2,237 kW (3,000 HP) that is not a fire pump

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engine and has a displacement of less than 10 liters/cylinder will require certification to the following emission standards:

For engines with a maximum engine power greater than or equal to 37 kW (50 HP):

- 2007 model year and later - emission standards specified in 40 CFR 89.112 and 40CFR 89.113, as applicable, for all pollutants, for the same model year and maximum engine power.

Compliance with this requirement will be established by purchasing an engine certified to the applicable emission standard referenced above and installed and configured according to the manufacturer's specifications. Records documenting these actions must be kept on-site.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 22: Duration of emission standards for new stationary compression ignition IC engines

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4206, NSPS Subpart IIII

Item 22.1:

Owners and operators of stationary combustion iginition internal combusiton engine (CI ICE) must operate and maintain the stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

Condition 23: Stationary CI-IC Engines - Installation and importing deadlines for engines produced in the previous model year Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4208, NSPS Subpart IIII

Item 23.1:

Owners or operators are subject to the following deadlines for importing or installing stationary compression ignition internal combustion engines (CI-ICE) produced in the previous model year:

- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
- (c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56

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KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

- (d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.
- (e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.
- (f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.
- (g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.
- (h) In addition to the requirements specified in 40 CFR 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import a stationary CI ICE with a displacement of less than 30 liters per cylinder that does not meet the applicable requirements specified in paragraphs (a) through (g) above after the dates specified in those paragraphs.
- (i) The deadlines listed above do not apply to owners or operators of a stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

Condition 24: Compliance Demonstration Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4211(a), NSPS Subpart IIII

Item 24.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 24.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator and must comply with the emission standards specified in 40 CFR 60 Subpart IIII and must operate and maintain the stationary compression ignition internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by



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the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator must also meet the requirements of 40 CFR parts 89, 94 and/or 1068.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 25: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4211(c), NSPS Subpart IIII

Item 25.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 25.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Owners or operators of a 2007 model year and later stationary CI internal combustion engine must comply with the emission standards specified in §60.4204(b) or §60.4205(b).

The engine must be installed and configured according to the manufacturer's specifications.

The manufacturer's certification of compliance with the emission standards specified in 40 CFR 60 Subpart IIII for major pollutants will be sent to the Department prior to commencement of operation of the engines.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 26: Compliance demonstration

Effective between the dates of 06/21/2018 and 06/20/2028



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Applicable Federal Requirement:40CFR 60.4211(e), NSPS Subpart IIII

Item 26.1:

This Condition applies to:

Emission Unit: U00005
Process: GEN
Emission Point: 00005
Emission Source: GEN01

Emission Unit: U00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 26.2:

The owner or operator of a modified or reconstructed stationary compression ignition internal combustion engine that must comply with the emission standards specified in 40 CFR 60.4204(e) or 4205(f) must demonstrate compliance according to one of the methods specified in paragraphs (1) or (2).

- (1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in 40 CFR 60.4204(e) or 4205(f), as applicable.
- (2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in 40 CFR 60.4212 or 4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

Condition 27: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4211(f), NSPS Subpart IIII

Item 27.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006 Process: GEN Emission Source: GEN02

Item 27.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

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Emergency stationary ICE 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, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Parameter Monitored: ENGINE OPERATION Upper Permit Limit: 100 hours per year

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: ANNUAL TOTAL

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 28: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4214, NSPS Subpart IIII

Item 28.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 28.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the

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standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 29: General Provisions

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4218, NSPS Subpart IIII

Item 29.1:

Table 8 of Subpart IIII shows which parts of the general provisions in §§60.1-60.19 (Subpart A) apply to any facility that is subject to 40 CFR 60, Subpart IIII.

Condition 30: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 80.510(b), Subpart I

Item 30.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 30.2:

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Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Beginning October 1, 2010: Except as otherwise specifically provided in 40 CFR 80 Subpart I, all nonroad and locomotive marine diesel fuel is subject to the following per-gallon standards for sulfur content:

15 ppm maximum for nonroad (NR) diesel fuel

City College of New York will demonstrate compliance with the fuel specifications by retaining certificates from the fuel supplier that the diesel fuel meets the nonroad diesel fuel requirements of 40 CFR 80.510 (b), or indication of the maximum 35 volume percent aromatic content or the minimum 40 ratio centane index.

Parameter Monitored: SULFUR

Upper Permit Limit: 15 parts per million by weight

Monitoring Frequency: PER DELIVERY

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 31: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 31.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 31.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

§ 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

1.(a) Exhaust emission from nonroad compression-ignition

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engines to which this subpart is applicable shall not exceed the applicable exhaust emission limit standards of 5.0 gm/kW-hr for the emissions of CO.

Naturally aspired nonroad engines to which this subpart is applicable shall not discharge crankcase emissions into the ambient atmosphere, unless such crankcase emissions are permanently routed into the exhaust and included in all exhaust emission measurements. This provision applies to all Tier 2 engines and later models. This provision does not apply to engines using turbocharges, pumps, blowers, or supercharges of air induction.

2. Emission Limitations and Standards as per 40 CFR.4202(a):

b. Carbon Monoxide (CO) as per 40 CFR 89.112:

The Permittee shall limit the emission of CO below 5.0 gm/kW-hr from the emergency engine.

This engine will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. The Permittee shall burn only diesel fuel in the compression ignition engine.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: CARBON MONOXIDE Upper Permit Limit: 5.0 grams per kilowatt hour

Reference Test Method: 40 CFR 89.112 Subpart E or 40 CFR Part 1065 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 32: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 32.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 **Emission Source: ENG03**

Regulated Contaminant(s):

40 CFR 60 SUBPART IIII - NMHC + NOX CAS No: 0NY508-00-0



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Item 32.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

§ 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

1.(a) Exhaust emission from nonroad compression-ignition engines to which this subpart is applicable shall not exceed the applicable exhaust emission limit standards of 4.0 gm/kW-hr for the combined emissions of NOx and NMHC.

Naturally aspired nonroad engines to which this subpart is applicable shall not discharge crankcase emissions into the ambient atmosphere, unless such crankcase emissions are permanently routed into the exhaust and included in all exhaust emission measurements. This provision applies to all Tier 2 engines and later models. this provision does not apply to engines using turbocharges, pumps, blowers, or supercharges of air induction.

- 2. Emission Limitations and Standards as per 40 CFR 60.4202(a):
- a. Nitrogen Oxides (NOx) and Non-methane hydrocarbons (NMHC) as per 40 CFR 89.112:

The Permittee shall limit the combined emissions of NOx and NMHC below 4.0 gm/kW-hr from the emergency engine.

This engine will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. The Permittee shall burn only diesel fuel in the compression ignition engine.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: 40 CFR 60 SUBPART IIII - NMHC + NOX

Upper Permit Limit: 4.0 grams per kilowatt hour

Reference Test Method: 40 CFR 89.112 Subpart E or 40 CFR Part 1065 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 33: Compliance Demonstration



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Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 33.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 33.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

§ 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

1.(a) Exhaust emission from nonroad compression-ignition engines to which this subpart is applicable shall not exceed the applicable exhaust emission limit standards of 0.3 gm/kW-hr for the emissions of PM.

Naturally aspired nonroad engines to which this subpart is applicable shall not discharge crankcase emissions into the ambient atmosphere, unless such crankcase emissions are permanently routed into the exhaust and included in all exhaust emission measurements. This provision applies to all Tier 2 engines and later models. this provision does not apply to engines using turbocharges, pumps, blowers, or supercharges of air induction.

- 2. Emission limitations and Standards as per 40 CFR 60.4202(a):
- c. Particulate Matter (PM) as per 40 CFR 89.112:

The Permittee shall limit the emission of PM below 0.3 gm/kW-hr from the emergency engine.

Exhaust emission of particulate matter is measured using the California Regulations for New 1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines. This procedure is incorporated by reference in 40 CFR 89.6.



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This engine will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. The Permittee shall burn only diesel fuel in the compression ignition engine.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL Parameter Monitored: PM-10

Upper Permit Limit: 0.3 grams per kilowatt hour

Reference Test Method: 40 CFR 89.6 or 40 CFR Part 1065

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 34: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 34.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 34.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

This engine will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. This compression ignition (CI) engine diesel generator will be operated for a maximum of 100 hours in a year for purposes of maintenance checks and readiness testing.

1. Type of Fuel:

The Permittee shall burn only diesel fuel in the compression ignition engine.

2. Operating Hours:

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The Permittee shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to NYSDEC upon request.

3. Monitoring, Reporting and Recordkeeping requirements:

The Permittee shall keep a monthly record of the hours of operation of the engine. At the end of each month, a 12-month rolling total of hours of operation of the engine shall be computed.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 100 hours

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 12-MONTH TOTAL, ROLLED MONTHLY

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 35: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 35.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 35.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

General Requirements

1. Operating Requirements

a. The Permittee shall operate and maintain the engine over its entire life according to the manufacturer's

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written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. A copy of the instructions or procedures shall be kept onsite and made available to NYSDEC upon request. [40 CFR 60.4206, 4211(a)]

- b. The Permittee shall only change those engine settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]
- c. The Permittee shall meet the requirements of 40 CFR parts 89, 94, or 1068, as they apply. [40 CFR 60.4211(a)]
- d. Fuel Requirements
- (2) After October 1, 2010, the engine shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b):
- (I) Sulfur content: 15 ppm maximum; and (II) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

 [40 CFR 60.4207(b)]
- e. Additional Emergency Engine Requirements [40 CFR 60.4211(e), 60.4209(a)]
- (1) The Permittee shall install a non-resettable hour meter prior to startup of the engine.
- (2) Emergency engines 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, or the insurance company associated with the engine.
- (3) The Permittee shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to NYSDEC upon request.
- (4) The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year.



- (5) The Permittee shall not operate emergency engines except for emergency purposes, and maintenance and testing.
- (6) The Permittee shall maintain monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.
- 3. Monitoring and Record Keeping Requirements a. The Permittee shall comply by purchasing an engine certified to the emission standards in this permit. The engine shall be installed and configured according to the manufacturer's specifications. [40 CFR 4211(c)]
- b. The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that the engine complies with the applicable standards in this Permit, and shall make the documentation available to NYSDEC upon request.
- c. The Permittee shall keep records of fuel supplier specifications. The specifications shall contain information regarding the name of fuel supplier, sulfur content, and cetane index or aromatic content in the fuel. These records shall be made available to NYSDEC upon request.
- 4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4202(a)(2), 60.4206, 60.4207(a) & (b), 60.4209(a), 60.4211(a), (c), & (e), 89.112, and 89.113.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 36: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 36.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006

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Process: GEN Emission Source: GEN02

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 36.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

§ 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

1.(a) Exhaust emission from nonroad compression-ignition engines to which this subpart is applicable shall not exceed the applicable exhaust emission limit standards of 3.5 gm/kW-hr for the emissions of CO.

Naturally aspired nonroad engines to which this subpart is applicable shall not discharge crankcase emissions into the ambient atmosphere, unless such crankcase emissions are permanently routed into the exhaust and included in all exhaust emission measurements. This provision applies to all Tier 2 engines and later models. This provision does not apply to engines using turbocharges, pumps, blowers, or supercharges of air induction.

- 2. Emission Limitations and Standards as per 40 CFR.4202(a):
- b. Carbon Monoxide (CO) as per 40 CFR 89.112:

The Permittee shall limit the emission of CO below 3.5 gm/kW-hr from the emergency engine.

This engine will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. The Permittee shall burn only diesel fuel in the compression ignition engine.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: CARBON MONOXIDE Upper Permit Limit: 3.5 grams per kilowatt hour

Reference Test Method: 40 CFR 89.112 Subpart E or 40 CFR Part 1065 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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Condition 37: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 37.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Regulated Contaminant(s):

CAS No: 0NY508-00-0 40 CFR 60 SUBPART IIII - NMHC + NOX

Item 37.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

§ 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

1.(a) Exhaust emission from nonroad compression-ignition engines to which this subpart is applicable shall not exceed the applicable exhaust emission limit standards of 6.4 gm/kW-hr for the combined emissions of NOx and NMHC.

Naturally aspired nonroad engines to which this subpart is applicable shall not discharge crankcase emissions into the ambient atmosphere, unless such crankcase emissions are permanently routed into the exhaust and included in all exhaust emission measurements. This provision applies to all Tier 2 engines and later models. this provision does not apply to engines using turbocharges, pumps, blowers, or supercharges of air induction.

- 2. Emission Limitations and Standards as per 40 CFR 60.4202(a):
- a. Nitrogen Oxides (NOx) and Non-methane hydrocarbons (NMHC) as per 40 CFR 89.112:

The Permittee shall limit the combined emissions of NOx and NMHC below 6.4 gm/kW-hr from the emergency

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engine.

This engine will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. The Permittee shall burn only diesel fuel in the compression ignition engine.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: 40 CFR 60 SUBPART IIII - NMHC + NOX

Upper Permit Limit: 6.4 grams per kilowatt hour

Reference Test Method: 40 CFR 89.112 Subpart E or 40 CFR Part 1065 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 38: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 38.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 38.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

§ 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

1.(a) Exhaust emission from nonroad compression-ignition engines to which this subpart is applicable shall not exceed the applicable exhaust emission limit standards of 0.2 gm/kW-hr for the emissions of PM.

Naturally aspired nonroad engines to which this subpart is

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applicable shall not discharge crankcase emissions into the ambient atmosphere, unless such crankcase emissions are permanently routed into the exhaust and included in all exhaust emission measurements. This provision applies to all Tier 2 engines and later models. this provision does not apply to engines using turbocharges, pumps, blowers, or supercharges of air induction.

- 2. Emission limitations and Standards as per 40 CFR 60.4202(a):
- c. Particulate Matter (PM) as per 40 CFR 89.112:

The Permittee shall limit the emission of PM below 0.2 gm/kW-hr from the emergency engine.

Exhaust emission of particulate matter is measured using the California Regulations for New 1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines. This procedure is incorporated by reference in 40 CFR 89.6.

This engine will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. The Permittee shall burn only diesel fuel in the compression ignition engine.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL Parameter Monitored: PM-10

Upper Permit Limit: 0.2 grams per kilowatt hour

Reference Test Method: 40 CFR 89.6 or 40 CFR Part 1065

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 39: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 89.113, Subpart B

Item 39.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006 Process: GEN Emission Source: GEN02

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Permit ID: 2-6202-00044/00004 Facility DEC ID: 2620200044

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 39.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC

OPERATIONS

Monitoring Description:

PART 89--CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES:

Subpart B--Emission Standards and Certification Provisions

Sec. 89.113 Smoke emission standard.

- (a) Exhaust opacity from the emergency compression-ignition nonroad engine diesel generators for which this subpart is applicable must not exceed:
 - (1) 20 percent during the acceleration mode;
 - (2) 15 percent during the lugging mode; and
- (3) 50 percent during the peaks in either the acceleration or lugging exhaust opacity modes.
- (b) Opacity levels are to be measured and calculated as set forth in 40 CFR part 86, subpart I. Notwithstanding the provisions of 40 CFR part 86, subpart I, two-cylinder nonroad engines may be tested using an exhaust muffler that is representative of exhaust mufflers used with the engines in use.
- (c) The following engines are exempt from the requirements of this section:
 - (1) Single-cylinder engines;
 - (2) Propulsion marine diesel engines; and
 - (3) Constant-speed engines.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL Parameter Monitored: OPACITY Upper Permit Limit: 20 percent

Reference Test Method: 40 CFR part 86, subpart I

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

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METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**** Emission Unit Level ****

Condition 40: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.43c(c), NSPS Subpart Dc

Item 40.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: FO1 Emission Source: NAC01

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 40.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL

DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

On and after the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood or oil and has a heat input capacity of 30 million BTU per hour or greater shall cause to be discharged into the atmosphere from an affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

Parameter Monitored: OPACITY Upper Permit Limit: 20.0 percent Monitoring Frequency: CONTINUOUS Averaging Method: 6 MINUTE AVERAGE

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 41: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 6 NYCRR 227-1.2 (a) (1)

Item 41.1:

The Compliance Demonstration activity will be performed for:

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Permit ID: 2-6202-00044/00004 Facility DEC ID: 2620200044

Emission Unit: U-00001 Emission Point: 00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 41.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate emission limit for singular boilers or multiple boilers ducted through a common stack, which fire liquid fuels, and that have a heat capacity exceeding 250

mmBtu/hr.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus Monitoring Frequency: SINGLE OCCURRENCE Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 42: Exemption from the averaging period.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.42c(h), NSPS Subpart Dc

Item 42.1:

This Condition applies to Emission Unit: U-00001 Emission Point: 00001

Process: FO1 Emission Source: NAC01

Item 42.2:

Compliance with emission limits and/or fuel oil sulfur limitations shall be based on a certification from the fuel supplier as stated in paragraph 40 CFR 60-Dc.48c(f)(1), (2), or (3) as applicable.

Condition 43: Enforceability

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.42c(i), NSPS Subpart Dc

Item 43.1:

This Condition applies to Emission Unit: U-00001 Emission Point: 00001

Process: FO1 Emission Source: NAC01

Item 43.2:

The sulfur dioxide emission limits, percentage reductions, and fuel oil sulfur limitations shall apply at all times, including periods of startup, shutdown, and malfunction.



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Condition 44: Alternative compliance methods for sulfur dioxide.

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.44c(h), NSPS Subpart Dc

Item 44.1:

This Condition applies to Emission Unit: U-00001 Emission Point: 00001

Process: FO1 Emission Source: NAC01

Item 44.2:

Facilities demonstrating compliance through vender certification shall follow the compliance procedures listed in paragraphs 40 CFR 60-Dc.48c(f)(1), (2), or (3), as applicable.

Condition 45: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.48c(e)(1), NSPS Subpart Dc

Item 45.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00001 Emission Point: 00001
Process: FO1 Emission Source: NAC01

Emission Unit: U-00001 Emission Point: 00001
Process: FO1 Emission Source: NAC05

Emission Unit: U-00001 Emission Point: 00001
Process: NG1 Emission Source: NAC01

Emission Unit: U-00001 Emission Point: 00001 Process: NG1 Emission Source: NAC05

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 45.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of each affected facility subject to the SO2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records as required under §60.48c(d) including the following information.

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Calendar dates covered in the reporting period.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 46: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.48c(f)(1), NSPS Subpart Dc

Item 46.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00001 Emission Point: 00001
Process: FO1 Emission Source: NAC01

Emission Unit: U-00001 Emission Point: 00001 Process: FO1 Emission Source: NAC05

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 46.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Fuel supplier certification shall include the following information for distillate oil:

- i) The name of the oil supplier, and
- ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c. 60-Dc 41c defines distillate oil as fuel that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, A standard Specification for Fuel Oils.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 47: Compliance Demonstration
Effective between the dates of 06/21/2018 and 06/20/2028

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Permit ID: 2-6202-00044/00004 Facility DEC ID: 2620200044

Applicable Federal Requirement:40CFR 60.48c(a), NSPS Subpart Dc

Item 47.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00002

Item 47.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner and operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c., or 40 CFR 60.43c.
- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: AVERAGING METHOD - SEE MONITORING

DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 48: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.48c(a), NSPS Subpart Dc

Item 48.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00001 Emission Point: 00001
Process: FO1 Emission Source: NAC01

Emission Unit: U-00001 Emission Point: 00001 Process: FO1 Emission Source: NAC05

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Emission Unit: U-00001 Emission Point: 00001 Process: NG1 Emission Source: NAC01

Emission Unit: U-00001 Emission Point: 00001 Process: NG1 Emission Source: NAC05

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB1

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB2

Item 48.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner and operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c., or 40 CFR 60.43c.
- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: AVERAGING METHOD - SEE MONITORING

DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 49: Applicability of General Provisions of 40 CFR 60 Subpart A Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60, NSPS Subpart A

Item 49.1:

This Condition applies to:

Emission Unit: U00004 Emission Point: 00004

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Permit ID: 2-6202-00044/00004 Facility DEC ID: 2620200044

Process: NG4 Emission Source: SCIB1

Item 49.1:

This Condition applies to Emission Unit: U-00004 Emission Point: 00004

Process: NG4 Emission Source: SCIB2

Item 49.2.3:

This emission source is subject to the applicable general provisions of 40 CFR 60. The facility owner is responsible for complying with all applicable technical, administrative and reporting requirements.

Condition 50: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.48c(g), NSPS Subpart Dc

Item 50.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00001 Emission Point: 00001
Process: FO1 Emission Source: NAC01

Emission Unit: U-00001 Emission Point: 00001 Process: FO1 Emission Source: NAC05

Emission Unit: U-00001 Emission Point: 00001 Process: NG1 Emission Source: NAC01

Emission Unit: U-00001 Emission Point: 00001
Process: NG1 Emission Source: NAC05

Emission Unit: U-00002 Emission Point: 00002 Process: NG2 Emission Source: 00J02

Emission Unit: U-00002 Emission Point: 00002 Process: NG2 Emission Source: 00J03

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB1

Emission Unit: U-00004 Emission Point: 00004 Process: NG4 Emission Source: SCIB2

Item 50.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel

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combusted during each day.

Monitoring Frequency: DAILY

Averaging Method: ANNUAL TOTAL ROLLED DAILY Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2019.

Subsequent reports are due every 12 calendar month(s).

Condition 51: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement: 40CFR 60.4207(b), NSPS Subpart IIII

Item 51.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00006 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 51.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

years.

ignition internal combustion engine with a displacement of less than 30 liters per cylinder and which is subject to the requirements of subpart IIII of 40 CFR Part 60 may not fire diesel fuel above a maximum aromatic content of 35 percent per gallon as referenced in 40 CFR Part 80.510(b) except that any diesel fuel purchased or otherwise obtained prior to October 1, 2010 may be used until

The owner or operator of a stationary compression

sampling each delivery and conducting an appropriate analysis or by obtaining a certificate of analysis showing the aromatic content for each shipment of diesel fuel provided by the fuel supplier. In either case, the owner or operator must verify that any required fuel analysis has been conducted using methodology acceptable to the Department. Records of all certificates of analysis provided by the fuel supplier and on-site fuel sampling results must be maintained on site for a minimum of five

depleted. Compliance shall be demonstrated by either

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Permit ID: 2-6202-00044/00004 Facility DEC ID: 2620200044

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: AROMATIC CONTENT

Upper Permit Limit: 35 percent

Monitoring Frequency: PER DELIVERY

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 52: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.4207(b), NSPS Subpart IIII

Item 52.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 52.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The owner or operator of a stationary compression ignition internal combustion engine displacing less than 30 liters per cylinder and which is subject to the requirements of subpart IIII of 40 CFR Part 60 may not fire diesel fuel below a minimum cetane index of 40 as referenced in 40 CFR Part 80.510(b) except that any diesel fuel purchased or otherwise obtained prior to October 1, 2010 may be used until depleted. Compliance shall be demonstrated by either sampling each delivery and conducting an appropriate analysis or by obtaining a certificate of analysis showing the cetane index for each shipment of diesel fuel provided by the fuel supplier. In either case, the owner or operator must verify that any required fuel analysis has been conducted using methodology acceptable to the Department. Records of all certificates of analysis provided by the fuel supplier and on-site fuel sampling results must be maintained on site for a minimum of five years.

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Permit ID: 2-6202-00044/00004 Facility DEC ID: 2620200044

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: CETANE INDEX

Lower Permit Limit: 40 ratio

Monitoring Frequency: PER DELIVERY

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED

VALUE AT ANY TIME

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 53: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.4207(b), NSPS Subpart IIII

Item 53.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005 Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 53.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC

OPERATIONS

Monitoring Description:

The owner or operator of a stationary compression ignition internal combustion engine displacing less than 30 liters per cylinder and which is subject to the requirements of subpart IIII of 40 CFR Part 60 may not fire any diesel fuel which exceeds a sulfur content of 15 ppm as per the non-road diesel fuel sulfur content standard set forth in 40 CFR Part 80.510(b) except that any diesel fuel purchased or otherwise obtained prior to October 1, 2010 may be used until depleted. Compliance shall be demonstrated by either sampling each delivery and conducting an appropriate analysis or by obtaining a certificate of analysis showing the sulfur content or range of sulfur content for each shipment of non-road diesel fuel provided by the fuel supplier. In either case, the owner or operator must verify that any required fuel analysis has been conducted using methodology acceptable to the Department. Records of all certificates of analysis provided by the fuel supplier and

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on-site fuel sampling results must be maintained on site for a minimum of five years.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15 parts per million by weight

Monitoring Frequency: PER DELIVERY

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 54: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable Federal Requirement:40CFR 60.4209(a), NSPS Subpart IIII

Item 54.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00005 Emission Point: 00005
Process: GEN Emission Source: GEN01

Emission Unit: U-00005 Emission Point: 00006
Process: GEN Emission Source: GEN02

Emission Unit: U-00006 Emission Point: 00007 Process: EG3 Emission Source: ENG03

Item 54.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of an emergency stationary compression ignition IC engine must install and maintain a non-resettable hour meter prior to startup to monitor

engine usage

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



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STATE ONLY ENFORCEABLE CONDITIONS **** Facility Level ****

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

- (a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;
- (3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- (c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records.



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Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item C: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS The following conditions are state only enforceable.

Condition 55: Contaminant List

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: ECL 19-0301

Item 55.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000630-08-0

Name: CARBON MONOXIDE

CAS No: 007446-09-5 Name: SULFUR DIOXIDE

CAS No: 0NY075-00-0 Name: PARTICULATES

CAS No: 0NY210-00-0



Permit ID: 2-6202-00044/00004 Facility DEC ID: 2620200044

Name: OXIDES OF NITROGEN

CAS No: 0NY508-00-0

Name: 40 CFR 60 SUBPART IIII - NMHC + NOX

Condition 56: Malfunctions and start-up/shutdown activities

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: 6 NYCRR 201-1.4

Item 56.1:

- (a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.
- (b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.
- (c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.
- (d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.
- (e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 57: Emission Unit Definition

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: 6 NYCRR Subpart 201-5



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Item 57.1:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00001 Emission Unit Description:

> Emission Unit U-00001 consists of five dual-fuel boilers, identified as Emission Sources NAC01, NAC02, NAC03, NAC04 & NAC05 located at the North Academic Center (NAC). These five boilers are used to provide steam for heat, hot water, and steam-driven air conditioning systems. Emission Sources NAC02 and NAC03 have a maximum heat input ratings of 99 MMBtu/hr each, Emission Source NAC04 has a maximum heat input ratings of 65 MMBtu/hr, Emission Source NAC01 has a maximum heat input ratings of 61 MMBtu/hr, and Emission Source NAC05 has a maximum heat input ratings of 25 MMBtu/hr. Emission Sources NAC02 and NAC03 are equipped with Todd V545GOXXX Low NOx burners, and Emission Source NAC04 is equipped with a Todd V485GOXXX Low NOx burner. All five boilers fire natural gas (Process NG1) or #2 fuel oil (Process FO1). Emissions from the boilers exhaust through a common stack identified as Emission Point 00001.

Building(s): NAC

Item 57.2:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00002 Emission Unit Description:

Emission Unit U-00002 consists of two natural gas-fired (Process NG2) boilers, identified as Boilers #2 & #3 (Emission Sources 00J02 & 00J03; respectively). Each of these two boilers is equipped with Gordon-Piatt FL18.2-GO-300 standard burners with maximum heat input ratings of 29.5 MM Btu/hr. These two boilers are used to provide steam for heat and hot water, and are located in Marshak Science Building. These two boilers fire natural gas (Process NG2) only. The Marshak Boilers #2 & #3 provide backup heat and steam to the Marshak Science Building as needed to supplement the NAC (North Academic Center) boilers in Emission Unit U-00001). Emissions from these two (2) boilers exhaust through a common stack identified as Emission Point 00002.

Boiler #1 has been removed from service on 7/31/2017 from the Marshak Science Building.

Building(s): J



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Item 57.3:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00004

Emission Unit Description:

Emission Unit U-00004 consists of two 34.0 MM Btu/hr Unilux Model ZF 3000HS each boilers (Emission Sources SCIB1 & SCIB2) in the City College of New York (CCNY) Center for Discovery and Innovation Building (CDI), formerly known as the Science Building. The boilers provide heat for building humidification, and intermittent use in a new vivarium. The heat input capacity is 34.0 MM Btu/hr for each boiler. These two boilers burn only natural gas (Process NG4). The flue gases generated from both boilers vent to the atmosphere via a common stack, identified as Emission Point 00004.

The two CCNY Center for Discovery and Innovation Building boilers are subject to 40 CFR Part 60, Subpart Dc, Standards of Performance for Small

Industrial-Commercial-Institutional Steam Generating Units. The monthly fuel use recordkeeping requirement that applies to the proposed two boilers (Emission Sources SCIB1 & SCIB2), 40 CFR Section 60.48c(g)(2) also applies to the following existing NSPS boilers: Emission Unit U-00001, Emission Sources NAC01 & NAC05, and Emission Unit U-00002 Emission Sources 00J02 and 00J03.

Building(s): CDI

Item 57.4:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00005

Emission Unit Description:

Emission Unit U-00005 consists of two 2,000 KW Caterpillar Model 3516C each exempt diesel fuel back-up emergency generators, identified as Emission Sources GEN01 & GEN02. These two engines will burn only diesel fuel (Process GEN). Each generator/engine will exhaust to its own separate individual stack. The flue gases generated from Emission Source GEN01 will vent to the atmosphere via a stack identified as Emission point 00005, and the flue gases generated from Emission Source GEN02 will vent to the atmosphere via a stack identified as Emission point 00006.

The engines associated with these two generators will be subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary compression Ignition Internal Combustion Engines, and 40 CFR Part 63, subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These two emergency generators are exempt from permitting in accordance with 6 NYCRR 201-3.1(b) and



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3.2(c)(6).

These two back-up diesel emergency generators burn ultra low sulfur fuel with maximum sulfur content of 15 ppm, in accordance with 40 CFR 60.4207(b) and 40 CFR 80.510(b). Each of the two emergency generators is 2,000 KW (2,644 HP). Each of the 16 cylinders displacement is 4.3 liters for a total of 69 liters per engine.

The two 2,000 KW each exempt emergency generators (Emission Sources GEN01 & GEN02) in Emission Unit U-00005 at the Center for Discovery and Innovation Building (CDI), formerly known as the Science Building will comply with the EPA standards that apply at the time of purchase. It is assumed that the generators are 2011 or later models, and they meet certification standards in 40 CFR 89.113 (in accordance with 40 CFR 60.4202(a)(2)).

Building(s): CDI

Item 57.5:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00006 Emission Unit Description:

Emission Unit U-00006 consists of an 80 kW exempt diesel fuel back-up emergency generator, identified as Emission Source ENG03 at Steinman Hall. The engine will burn only diesel fuel oil (Process EG3). The flue gases generated from Emission Source ENG03 will vent to Emission Point 00007.

The engine associated with this generator will be subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Compression Ignition Internal Combustion Engines, and 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Reciprocating Internal Combustion Engines. However, the engine is exempt from permitting in accordance with 6 NYCRR 201-3.1 (b).

The back-up diesel emergency generator will burn ultra-low sulfur fuel oil with a maximum sulfur content of 15 ppm (or 0.0015 % by weight) in accordance with 40 CFR 60.4207 (b) and 80.510 (b). The Model Year 2012 engine has a total cylinder displacement of less than 10 liters and will comply with the EPA standards that applied at the time of purchase.

Building(s): STE

Condition 58: Renewal deadlines for state facility permits
Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: 6 NYCRR 201-5.2 (c)

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Item 58.1:

The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Condition 59: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 59.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 59.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources NYS Dept. of Environmental Conservation Region 2 47-40 21st St. Long Island City, NY 11101

Reporting Requirements: ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 4/30/2019. Subsequent reports are due every 12 calendar month(s).

Condition 60: Visible Emissions Limited

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: 6 NYCRR 211.2

Item 60.1:

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

**** Emission Unit Level ****

Condition 61: Emission Point Definition By Emission Unit Effective between the dates of 06/21/2018 and 06/20/2028

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Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 61.1:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00001

Emission Point: 00001

Height (ft.): 119 Diameter (in.): 72

NYTMN (km.): 4518.98 NYTME (km.): 588.39 Building: NAC

Item 61.2:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00002

Emission Point: 00002

Height (ft.): 160 Length (in.): 36 Width (in.): 36 NYTMN (km.): 4519.025 NYTME (km.): 588.615 Building: J

Item 61.3:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00004

Emission Point: 00004

Height (ft.): 119 Diameter (in.): 48

NYTMN (km.): 4519.3 NYTME (km.): 588.6 Building: CDI

Item 61.4:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00005

Emission Point: 00005

Height (ft.): 145 Diameter (in.): 18

NYTMN (km.): 4519.3 NYTME (km.): 588.6 Building: CDI

Emission Point: 00006

Height (ft.): 145 Diameter (in.): 18

NYTMN (km.): 4519.3 NYTME (km.): 588.6 Building: CDI

Item 61.5:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00006

Emission Point: 00007

Height (ft.): 230 Diameter (in.): 4

NYTMN (km.): 4519.1 NYTME (km.): 588.5 Building: STE

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Condition 62: Process Definition By Emission Unit

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 62.1:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: FO1 Source Classification Code: 1-03-005-02

Process Description:

Process NG1 is the firing of #2 fuel oil in the five dual-fuel boilers (Emission Sources NAC01, NAC02, NAS03, NAC04 & NAC05) in Emission Unit U-00001, located at the North Academic Center (NAC). These five boilers are used to provide steam for heat, hot water, and steam-driven air conditioning systems. Emission Sources NAC02 and NAC03 have a maximum heat input ratings of 99 MMBtu/hr each, Emission Source NAC04 has a maximum heat input ratings of 65 MMBtu/hr, Emission Source NAC01 has a maximum heat input ratings of 61 MMBtu/hr, and Emission Source NAC05 has a maximum heat input ratings of 25 MMBtu/hr. Emission Sources NAC02 and NAC03 are equipped with Todd V545GOXXX Low NOx burners, and Emission Source NAC04 is equipped with a Todd V485GOXXX Low NOx burner. All five boilers also fire natural gas (Process NG1). Emissions from the boilers exhaust throgh a common stack identified as Emission Point 00001.

Emission Source/Control: NAC01 - Combustion Design Capacity: 61 million Btu per hour

Emission Source/Control: NAC02 - Combustion Design Capacity: 99 million Btu per hour

Emission Source/Control: NAC03 - Combustion Design Capacity: 99 million Btu per hour

Emission Source/Control: NAC04 - Combustion Design Capacity: 65 million Btu per hour

Emission Source/Control: NAC05 - Combustion Design Capacity: 25 million Btu per hour

Item 62.2:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: NG1 Source Classification Code: 1-03-006-02

Process Description:

Process NG1 is the firing of natural gas in the five dual-fuel boilers (Emission Sources NAC01, NAC02, NAS03,

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NAC04 & NAC05) in Emission Unit U-00001, located at the North Academic Center (NAC). These five boilers are used to provide steam for heat, hot water, and steam-driven air conditioning systems. Emission Sources NAC02 and NAC03 have a maximum heat input ratings of 99 MMBtu/hr each, Emission Source NAC04 has a maximum heat input ratings of 65 MMBtu/hr, Emission Source NAC01 has a maximum heat input ratings of 61 MMBtu/hr, and Emission Source NAC05 has a maximum heat input ratings of 25 MMBtu/hr. Emission Sources NAC02 and NAC03 are equipped with Todd V545GOXXX Low NOx burners, and Emission Source NAC04 is equipped with a Todd V485GOXXX Low NOx burner. All five boilers also fire #2 fuel oil (Process FO1). Emissions from the boilers exhaust throgh a common stack identified as Emission Point 00001.

Emission Source/Control: NAC01 - Combustion Design Capacity: 61 million Btu per hour

Emission Source/Control: NAC02 - Combustion Design Capacity: 99 million Btu per hour

Emission Source/Control: NAC03 - Combustion Design Capacity: 99 million Btu per hour

Emission Source/Control: NAC04 - Combustion Design Capacity: 65 million Btu per hour

Emission Source/Control: NAC05 - Combustion Design Capacity: 25 million Btu per hour

Item 62.3:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00002

Process: NG2 Source Classification Code: 1-03-006-02

Process Description:

Process NG2 is the firing of natural gas in the two boilers, identified as Boilers #2 & #3 (Emission Sources 00J02 & 00J03; respectively). Each boiler is equipped with Gordon-Piatt FL18.2-GO-300 standard burners with maximum heat input ratings of 29.5 MM Btu/hr. These two boilers are used to provide steam for heat and hot water, and are located in Marshak Science Building. These two boilers fire natural gas (Process NG2) only. Emissions from these two boilers exhaust through a common stack identified as Emission Point 00002.

Emission Source/Control: 00J02 - Combustion Design Capacity: 29.5 million Btu per hour

Emission Source/Control: 00J03 - Combustion

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Design Capacity: 29.5 million Btu per hour

Item 62.4:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00004

Process: NG4 Source Classification Code: 1-03-006-02

Process Description:

Process NG4 is the firing of natural gas in the two 34.0 MM Btu/hr each boilers (Emission Sources SCIB1 & SCIB2) in Emission Unit U-00004. The flue gases generated from these two boilers vent to the atmosphere via a common stack identified as Emission Point 00004.

Each of these two boilers will have a low NOx burner.

Emission Source/Control: SCIB1 - Combustion Design Capacity: 34 million Btu per hour

Emission Source/Control: SCIB2 - Combustion Design Capacity: 34 million Btu per hour

Item 62.5:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00005

Process: GEN Source Classification Code: 2-01-001-02

Process Description:

Process GEN is the combustion of diesel fuel oil in the two 2,000 KW Caterpillar Model 3516C each exempt diesel fuel emergency generators in Emission Unit U-00005. The flue gases generated from Emission Source GEN01 will vent to the atmosphere via its separate individual stack identified as Emission point 00005, and the flue gases generated from Emission Source GEN02 will vent to the atmosphere via its separate individual stack identified as Emission point 00006.

The fuel usage is expected to be (278 gal/hr x 12 hrs) or 3336 gal/yr for a total of 16 cylinders for the two engines combined.

These two back-up diesel emergency generators burn ultra low sulfur fuel with maximum sulfur content of 15 ppm, in accordance with 40 CFR 60.4207(b) and 40 CFR 80.510(b). Each of the two emergency generators is 2,000 KW (2,644 HP). Each engine has a cylindrical displacement of 4.3 liters per cylinder, for a total of 69 liters per engine.

The two 2,000 KW Caterpillar Model 3516C each exempt emergency generators (Emission Sources GEN01 & GEN02) in



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Emission Unit U-00005 will comply with the EPA standards that apply at the time of purchase. It is assumed that the generators are 2011 or at the Center for Discovery and Innovation (formerly known as the Science Building) in Emission Unit U-00005 will comply with the EPA standards that apply at the time of purchase. It is assumed that the generators are 2011 or later models and the displacement is 4.3 liters per cylinder for a total of 69 liters per engine. These two engines meet certification standards in 40 CFR 89.113 (in accordance with 40 CFR 60.4202(a0(2)).

Emission Source/Control: GEN01 - Combustion

Design Capacity: 2,000 kilowatts

Emission Source/Control: GEN02 - Combustion

Design Capacity: 2,000 kilowatts

Item 62.6:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00006

Process: EG3 Source Classification Code: 2-01-001-02

Process Description:

Process EG3 is the combustion of diesel fuel oil in an 80 kW exempt diesel fuel emergency generator (Emission Source ENG03) in Emission Unit U-00006. The flue gases generated from Emission Source ENG03 will vent to the atmosphere via Emission point 00007.

Estimated actual fuel use is 14.8 gal/hr x 12 hrs or 178 gal/yr.

The back-up diesel generator will burn ultra-low sulfur fuel with a maximum sulfur content of 15 ppm (or 0.0015 % by weight) in accordance with 40 CFR 60.4207 (b) and 80.510 (b). The Model Year 2012 engine has a total cylinder displacement of less than 10 liters and will comply with the EPA standards that applied at the time of purchase.

Emission Source/Control: ENG03 - Combustion

Design Capacity: 80 kilowatts

Condition 63: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: 6 NYCRR 227-1.4

Item 63.1:

The Compliance Demonstration activity will be performed for:

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Emission Unit: U-00001 Emission Point: 00001

Item 63.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Construction and installation of the COMS will be completed within 270 days of permit issuance. The owner or operator shall notify the Department within 30 days following the completion of construction and installation activities, that the COMS is ready for compliance monitoring.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 64: Compliance Demonstration

Effective between the dates of 06/21/2018 and 06/20/2028

Applicable State Requirement: 6 NYCRR 227-1.4 (a)

Item 64.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001 Emission Point: 00001

Item 64.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Any person who owns a stationary combustion installation (excluding gas turbines), with a total maximum heat input capacity exceeding 250 million Btu per hour shall install, operate in accordance with manufacturer's instructions, and properly maintain, accurate instruments satisfying the criteria in appendix B of title 40, part 60 of the Code of Federal Regulations, or approved by the commissioner on an individual case basis, for continuously monitoring and recording opacity, and when sulfur dioxide continuous monitoring is required by Part 225 of this Title, for continuously monitoring and recording either the percent oxygen or carbon dioxide in the flue gases from such installations at all times that the combustion installation is in service. Where gas is the only fuel burned, monitoring and recording of opacity is not required.

Parameter Monitored: OPACITY Upper Permit Limit: 20 percent



Reference Test Method: Apendix B, 40 CFR 60 Monitoring Frequency: CONTINUOUS Averaging Method: 6 MINUTE AVERAGE Reporting Requirements: QUARTERLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2018.

Subsequent reports are due every 3 calendar month(s).