



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**IDENTIFICATION INFORMATION**

Permit Type: Air Title V Facility  
Permit ID: 2-6205-00246/00005  
Mod 0 Effective Date: 09/29/2015 Expiration Date: 09/28/2020  
Mod 1 Effective Date: 01/23/2018 Expiration Date: 09/28/2020

Permit Issued To: NEW YORK UNIVERSITY  
70 WASHINGTON SQ S  
NEW YORK, NY 10012-1019

Contact: ZACHARY KORENSTEIN  
NEW YORK UNIVERSITY  
10 ASTOR PL FL 6  
NEW YORK, NY 10003  
(212) 992-8276

Facility: NYU CENTRAL PLANT  
251 MERCER ST  
NEW YORK, NY 10012

Contact: ZACHARY KORENSTEIN  
NEW YORK UNIVERSITY  
10 ASTOR PL FL 6  
NEW YORK, NY 10003  
(212) 992-8276

Description:

**PERMIT DESCRIPTION**  
**NYU Central Plant**  
**DEC ID # 2-6205-00246/00005 (Ren 2, Mod 1)**

This is a modification to the Title V Renewal #2 for NYU Central Plant. This project consists of the removal of:

The seven (7) identical Caterpillar D399 stationary diesel internal combustion reciprocating engine generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07), providing electricity with waste heat recovery boilers, from Emission Unit 2-0000. These seven engine-generators that fired diesel oil (# 2 fuel oil) are lean burn internal combustion engines with compression ignition source. Each engine is rated at 1,000 horsepower for primary power production. These seven engines have participated in the Special Case Resources (SCR) program of the New York Independent System Operator (NYISO) or any other demand response program, as well as providing emergency back-up as needed. They have not operated since November 2013.

And the installation of:

DEC Permit Conditions  
Renewal 2/Mod 1/FINAL



Two (2) new reciprocating engines into the same existing Emission Unit 2-0000; one is a 2.6 MW GE-Jenbacher lean burn spark-ignited (Emission Source ENG08) natural gas-fired engine (Process JEN) with add-on selective catalytic reduction (Emission Control SCR08) for NO<sub>x</sub> and catalytic oxidation (Emission Control OXC08) for CO and VOC. The other engine is a certified 2.5 MW Caterpillar D3516C Tier 4 compression ignition (Emission Source ENG09) ultra low-sulfur distillate fuel oil (Process CAT) fired Tier 4 compression ignition engine serving as dispatch for demand response programs for the plant with "built in" catalyst-based emissions control (Emission Controls SCR09 and OXC09). The emissions from the two engines exhaust through a common stack identified as Emission Point 00002. The hours of operation will be capped at 500 per year for the Caterpillar engine (Emission Source ENG09).

**Regulatory Applicability of New Source Review:**

The pre-netting total project NO<sub>x</sub> with all the controls will be 10.67 tpy of NO<sub>x</sub> for the GE-Jenbacher engine (Emission Source ENG08) firing natural gas 8760 hr/yr, and 1.16 tpy for the Caterpillar D3516C engine (Emission Source ENG09) firing ultra-low sulfur distillate oil and capped at 500 hrs/yr, the sum of which exceeds the Significant Project Threshold (SPT) of 2.5 tpy, but is less than 25 tpy [the Significant Net Emission Increase Threshold (SNEIT)]. This is a modification to an existing major facility in a non-attainment area within the Ozone Transport Region according to 6 NYCRR 231-6. The facility is installing BACT-approved add-on pollution controls using selective catalytic reduction (SCR) for reducing NO<sub>x</sub> emissions, and oxidation catalysis for reducing CO & VOC emissions.

As a result of this new project, there is no change or increase to the facility's total NO<sub>x</sub> emissions, and there is a decrease in NO<sub>x</sub> for the modified Emission Unit 2-0000.

The Jenbacher natural gas fired engine (Emission Control ENG08) will employ add-on control technology utilizing selective catalytic reduction (SCR) with urea feed to minimize oxides of nitrogen (NO<sub>x</sub>) emissions, and an oxidation catalyst to minimize carbon monoxide and VOC emissions. The PTE emission factors used in the calculations for the Jenbacher are 0.30 g/bhp-hr for NO<sub>x</sub>, CO and VOC; and 0.040 g/bhp-hr for PM-10.

The Title V air permit applicability utilizes a "Significant Project Threshold" of emissions (tpy), and, a "Significant Net Emission Increase Threshold (tpy), based on individual air pollutants and the facility's Area Contaminant Classification within the state. NYU is an existing Title V major facility.

The predominant facility air permitting applicability for this new project is: Modifications to Existing Major Facilities in Non-Attainment Areas and Attainment Areas of the State within the Ozone Transport Region, 6 NYCRR Subpart 231-6.

For Oxides of Nitrogen (NO<sub>x</sub>), which is classified as "attainment" in the New York City metropolitan area, the Significant Project Threshold is > 2.5 tpy and < 25 tpy for the Significant Net Emission Increase Threshold.

The firing of the controlled GE-Jenbacher JSM-616 engine generator on natural gas and its maximum operation of 365 days/yr and 24 hours /day (8760 hours per year) with add-on controls would emit 10.67 tons of NO<sub>x</sub> per year. The firing of the CAT 3516C engine generator on



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diesel and the capping of 500 hours/year calculates to 1.16 ton/year for a total project NOx of 11.83 tons per year.

Maximum NOx emission for the new project with controls = GE-Jenbacher JSM-616 engine + CAT 3516C engine =  $10.67 + 1.16 = 11.83$  tpy, which is the total project annual potential to emit, which is  $> 2.5$  tons and is  $< 25$  tons.

Based on an arbitrary NOx emission factor for the JEN of 0.3 g/bhp-hr and operating 8760 hrs/yr,

NEI = NOx emissions from GE-Jenbacher engine + NOx emissions from Caterpillar / D3516C engine =  
NEI =  $10.67$  tpy +  $1.16$  tpy =  $11.83$  tpy  $< 25$  tpy, but  $> 2.5$  tpy

NOx PTE for JEN + NOx PTE for CAT =  
 $10.67 + 1.16 = 11.83$  tpy of NOx

Conclusion: Based on the Subpart 231-2 Netting Analysis, since the Net Emission Increase (NEI) is 11.83 which is  $> 2.5$  tpy and  $< 25$  tpy for the Significant New Emission Increase (SNEIT), then this facility is NOT subject to Subpart 231-2.

The Net Emission Increase (NEI) has to be  $<$  Significant Emission Increase (SNEIT) of 25 tpy NOx for this project.

NYU's Central Plant is a central cogeneration power plant at a major urban university in New York City.

New York University's (NYU) on campus, subterranean power plant currently consists of two, dual fueled (natural gas and ultra-low sulfur diesel) 5.5 MW Solar Taurus Model 60 turbines, each with a heat recovery steam generator (HRSG) and duct burner (natural gas only and never operating without its turbine), and three 65 MM Btu/hr dual-fuel, natural gas and distillate #2 fuel oil fired boilers.

The new "181 Mercer Street Expansion Project" involves installation of a new 2.6 MW natural gas-fired GE-Jenbacher JSM-616 engine generator (2649 KW or 4.55 MM Btu/hr), and a new 2.5 MW diesel-fired CAT 3516C, certified Tier 4 engine generator (2500 KW or 3627 HP) serving as dispatch for demand response programs and as black start power for the plant.

NYU will maintain the new project emissions under the NOx 11.83 tons/year threshold cap by:

1. Preparing a BACT Plan to confirm the attributes and justifiability of the chosen technology; and
2. Installing BACT-approved add-on pollution controls to the GE-Jenbacher JSM-616 engine (Emission Source ENG08) that include selective catalytic reduction (SCR) for NOx reduction (Emission Control SCR08), and an oxidation catalyst (Emission Control OXC08) for CO and VOC reductions. CO initially exceeds the Significant Project Threshold (SPT), but does not exceed the Significant Net Emission Increase Threshold (SNEIT). The GE-Jenbacher engine under NSPS Subpart JJJJ has emission standards for CO (2.0 g/bhp-hr) and VOC (0.7 g/bhp-hr), as well as NOx (1.0 g/bhp-hr).



The GE-Jenbacher JSM-616 engine is equipped with SCR (Emission Control SCR08) and Oxidation Catalyst (Emission Control OXC08). The GE-Jenbacher JSM-616 engine generator emits 1.0 g/bhp-hr, which meets the NYSDEC presumptive standard for natural gas-fired engines of 1.5 g/bhp-hr, and the federal new source performance standard (NSPS) for stationary spark ignition internal combustion engines per 40 CFR 60 Subpart JJJJ of 1.0 g/bhp-hr. Similarly, the Jenbacher will meet the NSPS Subpart JJJJ CO standard of 2.0 g/bhp-hr and the NSPS Subpart JJJJ VOC standard of 0.7 g/bhp-hr. Applicability to National Emission Standards for Hazardous Air Pollutants (NESHAPs) Subpart ZZZZ (40 CFR 63.6590; Stationary Reciprocating Internal Combustion Engines) is met by meeting the requirements of NSPS Subpart JJJJ. No further requirements apply for such engines under Subpart ZZZZ.

The GE-Jenbacher JSM-616 natural gas fired engine generator (Emission Control ENG08) will employ add-on control technology utilizing selective catalytic reduction (SCR) with urea feed to minimize oxides of nitrogen (NO<sub>x</sub>) emissions, and an oxidation catalyst to minimize carbon monoxide emissions. The following is a manufacturer's guaranteed maximum emissions from the GE-Jenbacher JSM-616 engine generator:

NO<sub>x</sub> Emissions: 0.078 grams/bhp-hr  
CO Emissions: 0.156 grams/bhp-hr  
VOC Emissions: 0.078 grams/bhp-hr  
Formaldehyde HCHO Emissions: 0.02 grams/bhp-hr  
Ammonia Slip: 5.0 ppmvd

The controlled GE-Jenbacher JSM-616 engine generator (2649 KW or 4.55 MM Btu/hr) - Emission Source ENG08 is four-stroke lean burn spark ignited, and will meet the NYSDEC presumptive standard for natural-fired engines (1.5 g/bhp-hr), the federal New Source Performance Standard (NSPS) for stationary spark ignition internal combustion engines (40 CFR 60 Subpart JJJJ) for NO<sub>x</sub>, which is 1.0 g/bhp-hr, the CO NSPS limit of 2.0 g/bhp-hr, and the VOC NSPS of 0.7 g/bhp-hr. Therefore, the GE-Jenbacher JSM-616 will meet the NSPS Subpart JJJJ NO<sub>x</sub> standard, CO standard and the VOC standard.

Diesel-fired CAT 3516C, Tier 4 engine generator (2500 KW or 3627 HP) - Emission Source ENG09:

The diesel-fired CAT 3516, Tier 4 engine generator (Emission Source ENG09) utilizes proprietary built-in emissions controls (Emission Controls SCR09 & OXC09) and will not have its exhaust passed through the Jenbacher SCR system. The CAT generator set is optimized for use with the CAT clean emissions module (CEM), with the after-treatment system featuring a diesel oxidation catalyst combined with a selective catalytic reduction module and an air-assisted urea injection system. The generator set also features integrated electronics for monitoring, protection and closed loop NO<sub>x</sub> control, an ADEM A4 controller, Air-to-Air After cooler cooling system, MEUI fuel system and state-of-the-art CAT EMCP 4 control panel. The catalyst-based control systems used for this product come from the factory as a serialized component 'married' to the engine and cannot be installed separately from the machine per EPA regulations. The engine will have an EPA certification sticker, thus, no additional certifications are needed.

NSPS 40 CFR Part 60 Subpart IIII regulations for Stationary Compression Ignition Internal Combustion Engines, covers the CAT permitting applicability. Similarly, applicability to NESHAPs Subpart ZZZZ is met by meeting the requirements of Subpart IIII. No further requirements apply for such engines under Subpart ZZZZ.



The following is the manufacturers' specifications for these two engines:

The stationary spark ignited natural gas-fired GE-Jenbacher JSM-616 engine generator is a four-stroke lean burn spark ignited engine with controls. It is rated at 2649 KW or 4.55 MM Btu/hr (Emission Source ENG08). The PTE-establishing arbitrary level of 0.3 g/bhp-hr for all three parameters (NO<sub>x</sub>, CO and VOC) will meet the NSPS Subpart JJJJ compliance after the built-in controls from selective catalytic reduction (NO<sub>x</sub>) and oxidation catalyst (CO & VOC). For non-emergency spark ignited natural gas engines greater than or equal to 500 HP and manufactured July 2010 or after, the NSPS emission standards are:

NSPS JJJJ	NO <sub>x</sub>	CO	VOC
g/bhp-hr	1.0	2.0	0.7
ppmvd	82	270	60

For the Caterpillar manufacturer's nominal rated emission factors, total NO<sub>x</sub> is established as 4.63 lb/hr, and the NO<sub>x</sub> emission rate for the Caterpillar engine is 4.63 lb/hr x 500 hours = 1.16 tpy (equivalent to 0.59 g/bhp-hr). The NSPS Subpart IIII general standards for engines of KW > 560 /HP > 750 are:

NSPS IIII	NO <sub>x</sub>	CO	PM	HC
g/bhp-hr	6.9	8.5	0.40	1.0
g/KW-hr	9.2	11.4	0.54	1.3

The emissions of the CAT (Emission Source ENG09) and the post-SCR Jenbacher (Emission Source GEN08) will exhaust to the existing stack (Emission Point 00002) with its existing continuous opacity monitor (COMS).

To provide space for the new equipment, the existing seven (7) diesel-fired, Caterpillar D399 engines in Emission Unit 2-0000, combustion Emission Sources ENG01 through ENG07, will be permanently removed on 2/4/2018, and the NO<sub>x</sub> RACT variance under which these seven engines operated will no longer be in effect.

Similarly, Process 003 will be removed on 2/4/2018. As such, the following current permit conditions associated with Process 003 or Emission Sources ENG01 through ENG07 will be eliminated: #22.2, #24.1, #28, #30, #46, #47, #48, #51, #53, #61.7, #146, #147 and #148.

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
  - 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





**DEC GENERAL CONDITIONS**

**\*\*\*\* General Provisions \*\*\*\***

**For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.**

**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**

**Expired by Mod No: 1**

**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.

**Item 3.2:**

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

**Item 3.3:**



# New York State Department of Environmental Conservation

Facility DEC ID: 2620500246

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 1-1: Applications for permit renewals, modifications and transfers**  
**Applicable State Requirement: 6 NYCRR 621.11**

**Item 1-1.1:**

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.

**Item 1-1.2:**

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

**Item 1-1.3**

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:

DEC Permit Conditions  
Renewal 2/Mod 1/FINAL

**New York State Department of Environmental Conservation**  
**Facility DEC ID: 2620500246**



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

**New York State Department of Environmental Conservation**

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: NEW YORK UNIVERSITY  
70 WASHINGTON SQ S  
NEW YORK, NY 10012-1019

Facility: NYU CENTRAL PLANT  
251 MERCER ST  
NEW YORK, NY 10012

Authorized Activity By Standard Industrial Classification Code:  
8221 - COLLEGES AND UNIVERSITIES, NEC

Mod 0 Permit Effective Date: 09/29/2015

Permit Expiration Date: 09/28/2020

Mod 1 Permit Effective Date: 01/23/2018

Permit Expiration Date: 09/28/2020



## LIST OF CONDITIONS

### FEDERALLY ENFORCEABLE CONDITIONS

#### Facility Level

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6 NYCRR 201-6.4 (a) (7): Fees
- 3 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
- 4 6 NYCRR 201-6.4 (c): Compliance Certification
- 5 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
- 6 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 7 6 NYCRR 201-6.4 (e): Compliance Certification
- 8 6 NYCRR 202-2.1: Compliance Certification
- 9 6 NYCRR 202-2.5: Recordkeeping requirements
- 10 6 NYCRR 215.2: Open Fires - Prohibitions
- 11 6 NYCRR 200.7: Maintenance of Equipment
- 12 6 NYCRR 201-1.7: Recycling and Salvage
- 13 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 14 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
- 15 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
- 16 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 1-1 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 17 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 18 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 19 6 NYCRR 202-1.1: Required Emissions Tests
- 20 40 CFR Part 68: Accidental release provisions.
- 21 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 1-2 6 NYCRR 200.7: Compliance Certification
- 22 6 NYCRR Subpart 201-6: Emission Unit Definition
- 23 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 1-3 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 25 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- \*1-4 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*1-5 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*26 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*27 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*29 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*31 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 1-6 6 NYCRR 201-7.1 (c) (1): Facility Permissible Emissions
- \*1-7 6 NYCRR 201-7.1 (c) (1): Capping Monitoring Condition
- \*1-8 6 NYCRR 201-7.1 (c) (1): Capping Monitoring Condition
- \*1-9 6 NYCRR 201-7.1 (c) (1): Capping Monitoring Condition
- 32 6 NYCRR 211.1: Air pollution prohibited
- 1-10 6 NYCRR 225-1.2: Compliance Certification
- 33 6 NYCRR 225-1.2 (f): Compliance Certification
- 34 6 NYCRR 225-1.2 (g): Compliance Certification
- 35 6 NYCRR 225-1.2 (h): Compliance Certification
- 36 6 NYCRR 225-1.6: Compliance Certification



- 37 6 NYCRR 225.7 (a): Compliance Certification
- 1-11 6 NYCRR 227-1.3: Compliance Certification
- 38 6 NYCRR 227-1.3: Compliance Certification
- 39 6 NYCRR 227-1.3: Compliance Certification
- 1-12 6 NYCRR 227-1.3 (a): Compliance Certification
- 40 6 NYCRR 227-1.4 (b): Compliance Certification
- 41 6 NYCRR 227-1.6 (a): Compliance Certification
- 42 6 NYCRR 227-1.6 (b): Corrective action.
- 43 6 NYCRR 227-1.6 (c): Corrective action.
- 44 6 NYCRR 227-1.6 (d): Corrective action.
- 45 6 NYCRR 227-2.4 (c) (1) (ii): Compliance Certification
- 1-13 6 NYCRR 227-2.4 (f) (1): Compliance Certification
- 1-14 6 NYCRR 227-2.4 (f) (3): Compliance Certification
- 49 6 NYCRR 227-2.5 (a): Compliance Certification
- 50 6 NYCRR 227-2.5 (c): Compliance Certification
- 1-15 6 NYCRR 227.2 (b) (1): Compliance Certification
- 52 6 NYCRR 227.2 (b) (1): Compliance Certification
- 54 6 NYCRR 227.2 (b) (1): Compliance Certification
- 1-16 6 NYCRR Subpart 231-6: Compliance Certification
- 1-17 40CFR 60.4211(a), NSPS Subpart IIII: Compliance Certification
- 1-18 40CFR 60.4211(g), NSPS Subpart IIII: Compliance Certification
- 1-19 40CFR 60.4211(g), NSPS Subpart IIII: Compliance Certification
- 1-20 40CFR 60.4211(g), NSPS Subpart IIII: Compliance Certification
- 1-21 40CFR 60.4211(g), NSPS Subpart IIII: Compliance Certification
- 1-22 40CFR 60.4243(b)(2)(ii), NSPS Subpart JJJJ: Compliance Certification
- 1-23 40CFR 60.4243(b)(2)(ii), NSPS Subpart JJJJ: Compliance Certification
- 1-24 40CFR 60.4243(b)(2)(ii), NSPS Subpart JJJJ: Compliance Certification
- 1-25 40CFR 60.4243(b)(2)(ii), NSPS Subpart JJJJ: Compliance Certification
- 55 40CFR 60.4305, NSPS Subpart KKKK: Compliance Certification
- 56 40CFR 60.4340, NSPS Subpart KKKK: Compliance Certification
- 57 40CFR 60.4340, NSPS Subpart KKKK: Compliance Certification
- 58 40CFR 60.4365(a), NSPS Subpart KKKK: Compliance Certification
- 59 40CFR 60.4365(a), NSPS Subpart KKKK: Compliance Certification
- Emission Unit Level**
- 60 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 61 6 NYCRR Subpart 201-6: Process Definition By Emission Unit

**EU=1-00000,EP=00001**

- 62 6 NYCRR 227-1.2 (a) (1): Compliance Certification
- 63 6 NYCRR 227-1.3 (a): Compliance Certification
- 64 6 NYCRR 227-1.4 (b): Compliance Certification

**EU=1-00000,EP=00001,Proc=004,ES=DUCT1**

- 65 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 66 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 67 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 68 40CFR 60.7(f), NSPS Subpart A: Facility files for subject sources.
- 69 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 70 40CFR 60.8(b), NSPS Subpart A: Performance Test Methods - Waiver EU Level
- 71 40CFR 60.8(d), NSPS Subpart A: Prior notice.



- 72 40CFR 60.8(e), NSPS Subpart A: Performance testing facilities.
- 73 40CFR 60.8(f), NSPS Subpart A: Number of required tests.
- 74 40CFR 60.9, NSPS Subpart A: Availability of information.
- 75 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=004,ES=DUCT2**

- 76 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 77 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 78 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 79 40CFR 60.7(f), NSPS Subpart A: Facility files for subject sources.
- 80 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 81 40CFR 60.8(b), NSPS Subpart A: Performance Test Methods - Waiver EU Level
- 82 40CFR 60.8(d), NSPS Subpart A: Prior notice.
- 83 40CFR 60.8(e), NSPS Subpart A: Performance testing facilities.
- 84 40CFR 60.8(f), NSPS Subpart A: Number of required tests.
- 85 40CFR 60.9, NSPS Subpart A: Availability of information.
- 86 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=004,ES=TURB1**

- 87 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 88 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 89 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 90 40CFR 60.7(f), NSPS Subpart A: Facility files for subject sources.
- 91 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 92 40CFR 60.8(b), NSPS Subpart A: Performance Test Methods - Waiver EU Level
- 93 40CFR 60.8(d), NSPS Subpart A: Prior notice.
- 94 40CFR 60.8(e), NSPS Subpart A: Performance testing facilities.
- 95 40CFR 60.8(f), NSPS Subpart A: Number of required tests.
- 96 40CFR 60.9, NSPS Subpart A: Availability of information.
- 97 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification
- 98 40CFR 60.4340(a), NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=004,ES=TURB2**

- 99 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 100 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 101 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 102 40CFR 60.7(f), NSPS Subpart A: Facility files for subject sources.
- 103 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 104 40CFR 60.8(b), NSPS Subpart A: Performance Test Methods - Waiver EU Level
- 105 40CFR 60.8(d), NSPS Subpart A: Prior notice.
- 106 40CFR 60.8(e), NSPS Subpart A: Performance testing facilities.
- 107 40CFR 60.8(f), NSPS Subpart A: Number of required tests.
- 108 40CFR 60.9, NSPS Subpart A: Availability of information.
- 109 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification
- 110 40CFR 60.4340(a), NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=005**

- 111 6 NYCRR 227-1.3 (a): Compliance Certification
- 112 40CFR 60.45c(a), NSPS Subpart Dc: Compliance Certification

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**EU=1-00000,EP=00001,Proc=005,ES=DUCT1**

- 113 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 114 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=005,ES=DUCT2**

- 115 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 116 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=005,ES=TURB1**

- 117 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 118 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 119 40CFR 60.7(a), NSPS Subpart A: Date of Construction Notification - if a COM is used.
- 120 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 121 40CFR 60.7(f), NSPS Subpart A: Facility files for subject sources.
- 122 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 123 40CFR 60.8(b), NSPS Subpart A: Performance Test Methods - Waiver EU Level
- 124 40CFR 60.8(d), NSPS Subpart A: Prior notice.
- 125 40CFR 60.8(e), NSPS Subpart A: Performance testing facilities.
- 126 40CFR 60.8(f), NSPS Subpart A: Number of required tests.
- 127 40CFR 60.9, NSPS Subpart A: Availability of information.
- 128 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification
- 129 40CFR 60.4330, NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=005,ES=TURB2**

- 130 6 NYCRR 227-2.4 (e) (3): Compliance Certification
- 131 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 132 40CFR 60.7(a), NSPS Subpart A: Date of Construction Notification - if a COM is used.
- 133 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 134 40CFR 60.7(f), NSPS Subpart A: Facility files for subject sources.
- 135 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 136 40CFR 60.8(b), NSPS Subpart A: Performance Test Methods - Waiver EU Level
- 137 40CFR 60.8(d), NSPS Subpart A: Prior notice.
- 138 40CFR 60.8(e), NSPS Subpart A: Performance testing facilities.
- 139 40CFR 60.8(f), NSPS Subpart A: Number of required tests.
- 140 40CFR 60.9, NSPS Subpart A: Availability of information.
- 141 40CFR 60.4325, NSPS Subpart KKKK: Compliance Certification
- 142 40CFR 60.4330, NSPS Subpart KKKK: Compliance Certification

**EU=1-00000,EP=00001,Proc=006**

- 143 6 NYCRR 227-1.3: Compliance Certification
- 144 6 NYCRR 227-1.3 (a): Compliance Certification

**EU=2-00000,EP=00002**

- 145 6 NYCRR 227-1.4 (b): Compliance Certification
- 1-26 40CFR 60.4211(a), NSPS Subpart IIII: Compliance Certification
- 1-27 40CFR 60.4211(g), NSPS Subpart IIII: Compliance Certification



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- 1-28 40CFR 60.4211(g), NSPS Subpart IIII: Compliance Certification
- 1-29 40CFR 60.4211(a), NSPS Subpart IIII: Compliance Certification

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 149 ECL 19-0301: Contaminant List
- 150 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities

**Emission Unit Level**

**EU=1-00000,EP=00001**

- 151 6 NYCRR 227-1.4 (a): Compliance Demonstration

NOTE: \* preceding the condition number indicates capping.



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

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**  
**The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.**

**Item A: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10 (b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

**Item B: Timely Application for the Renewal of Title V Permits - 6 NYCRR 201-6.2 (a) (4)**

Owners and/or operators of facilities having an issued Title V 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.

**Item C: Certification by a Responsible Official - 6 NYCRR 201-6.2 (d) (12)**

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**Item D: Requirement to Comply With All Conditions - 6 NYCRR 201-6.4 (a) (2)**

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

**Item E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR 201-6.4 (a) (3)**

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and



reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**Item F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4 (a) (5)**

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

**Item G: Property Rights - 6 NYCRR 201-6.4 (a) (6)**

This permit does not convey any property rights of any sort or any exclusive privilege.

**Item H: Severability - 6 NYCRR 201-6.4 (a) (9)**

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item I: Permit Shield - 6 NYCRR 201-6.4 (g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;

ii. The liability of a permittee of the Title V



facility for any violation of applicable requirements prior to or at the time of permit issuance;

iii. The applicable requirements of Title IV of the Act;

iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

**Item J: Reopening for Cause - 6 NYCRR 201-6.4 (i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

i. When additional applicable requirements under the act become applicable to a title V facility with a remaining permit term of three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the department pursuant to the provisions of section 201- 6.6 of this Subpart.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit



is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**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)**

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.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS  
SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES**

**The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.**

**Condition 1: Acceptable Ambient Air Quality  
Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 200.6**

**Item 1.1:**

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

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contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

**Condition 2: Fees**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (7)**

**Item 2.1:**

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

**Condition 3: Recordkeeping and Reporting of Compliance Monitoring**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (c)**

**Item 3.1:**

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii)The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.2 of Part 201.

**Condition 4: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (c)**

**Item 4.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 4.2:**

Compliance Certification shall include the following monitoring:

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Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The facility's NOx emissions will not exceed 158.5 tpy. Computerized records, will be kept on file, that calculate emissions based on equipment manufacturer's emissions factors, stack test results, and EPA emission factors.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 158.5 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2016.

Subsequent reports are due every 6 calendar month(s).

**Condition 5: Records of Monitoring, Sampling, and Measurement  
Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (c) (2)**

**Item 5.1:**

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

**Condition 6: Compliance Certification  
Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (c) (3) (ii)**

**Item 6.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 6.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum



frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

- (1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
- (2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
- (3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.
- (4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A





written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.2(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.4(e), contained elsewhere in this permit.

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Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2016.

Subsequent reports are due every 6 calendar month(s).

**Condition 7: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (e)**

**Item 7.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 7.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
  - the identification of each term or condition of the permit that is the basis of the certification;
  - the compliance status;
  - whether compliance was continuous or intermittent;
  - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related record keeping and reporting requirements of this permit;
  - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
  - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter

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that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.

iv. All annual compliance certifications may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). The mailing addresses for the above referenced persons are:

Chief – Stationary Source Compliance Section  
USEPA Region 2  
Air Compliance Branch  
290 Broadway  
New York, NY 10007-1866

The address for the RAPCE is as follows:

Regional Air Pollution Control Engineer  
Hunters Point Plaza  
47-40 21st Street  
Long Island City, NY 11101-5407

The address for the BQA is as follows:

NYSDEC  
Bureau of Quality Assurance  
625 Broadway  
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2016.  
Subsequent reports are due on the same day each year

**Condition 8: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 202-2.1**

**Item 8.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 8.2:**

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Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year. Statements are to be mailed to: New York State Department of Environmental Conservation, Division of Air Resources, Bureau of Air Quality Planning, 625 Broadway, Albany NY 12233-3251

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due by April 15th for previous calendar year

**Condition 9: Recordkeeping requirements**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 202-2.5**

**Item 9.1:**

(a) The following records shall be maintained for at least five years:

- (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

**Condition 10: Open Fires - Prohibitions**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 215.2**

**Item 10.1:**

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

**Item 10.2**

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is



- used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
  - (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
  - (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
  - (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
  - (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
  - (i) Prescribed burns performed according to Part 194 of this Title.
  - (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
  - (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
  - (l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS  
SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**

**The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period.**

**[NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]**

**Condition 11: Maintenance of Equipment**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 200.7**

**Item 11.1:**

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, required to operate such device



effectively.

**Condition 12: Recycling and Salvage**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:6 NYCRR 201-1.7**

**Item 12.1:**

Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

**Condition 13: Prohibition of Reintroduction of Collected Contaminants to the air**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:6 NYCRR 201-1.8**

**Item 13.1:**

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.

**Condition 14: Exempt Sources - Proof of Eligibility**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:6 NYCRR 201-3.2 (a)**

**Item 14.1:**

The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

**Condition 15: Trivial Sources - Proof of Eligibility**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:6 NYCRR 201-3.3 (a)**

**Item 15.1:**

The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request.

**Condition 16: Requirement to Provide Information**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (4)**



**Item 16.1:**

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

**Condition 1-1: Right to Inspect**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (8)**

**Item 1-1.1:**

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 17: Right to Inspect**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (8)**

**Item 17.1:**

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air

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pollution control equipment), practices, and operations regulated or required under the permit;  
and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 18: Off Permit Changes**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (f) (6)**

**Item 18.1:**

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.4 shall not apply to any change made pursuant to this paragraph.

**Condition 19: Required Emissions Tests**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 202-1.1**

**Item 19.1:**

For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time.

**Condition 20: Accidental release provisions.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40 CFR Part 68**

**Item 20.1:**

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities



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greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

- a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;
- b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:
  - 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,
  - 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center  
C/O CSC  
8400 Corporate Dr  
Carrollton, Md. 20785

**Condition 21: Recycling and Emissions Reduction**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 82, Subpart F**

**Item 21.1:**  
The permittee shall comply with all applicable provisions of 40 CFR Part 82.

**The following conditions are subject to annual compliance certification requirements for Title V permits only.**

**Condition 1-2: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 200.7**

**Item 1-2.1:**  
The Compliance Certification activity will be performed for the facility:  
The Compliance Certification applies to:

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09



Emission Unit: 2-00000 Emission Point: 00002  
Process: JEN Emission Source: ENG08

Emission Unit: 2-00000 Emission Point: 00002  
Process: JEN Emission Source: OXC08

Emission Unit: 2-00000 Emission Point: 00002  
Process: JEN Emission Source: SCR08

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 1-2.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Maintenance of Equipment:

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, required to operate such device effectively.

This condition applies to the two new stationary reciprocating internal combustion engines (Emission Sources ENG08 & ENG09) which will be installed on 2/1/2018 and into the same existing emission unit (Emission Unit 2-00000) and utilize the same existing stack and emission point (Emission Point 00002). One engine is defined as Emission Source ENG08, the 2.6 MW (equivalent to 2649 KW or to 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine natural gas fired spark-ignited (Process JEN) and is equipped with selective catalytic reduction (SCR08) for NO<sub>x</sub> and catalytic oxidation for CO and VOC (Emission Control OXC08). The other engine defined as Emission Source ENG09, is a 2.5 MW Caterpillar / 3516C (equivalent to 2500 KW or to 3627 HP) ultra-low sulfur fuel oil-fired (Process CAT) Tier 4 compression ignition engine for black start and utility demand programs with "built-in" catalyst-based emissions controls (Emission Controls OXC09 and SCR09).

To ensure that the units run at optimum conditions and stay in compliance with NO<sub>x</sub> RACT emission limits, periodic maintenance will be performed in accordance with manufacturer's specifications. These specific procedures are outlined in the manufacturer's specification manual



for the unit. Other components of the periodic maintenance program for the unit include those actions necessitated by the results of monitoring the following data: diagnostic data obtained after a set number of operating hours, engine gas analysis, and fuel consumption versus power output of the unit.

This monitoring description will be revised after the facility submits new procedures from the OEMs to the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 22: Emission Unit Definition**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 22.1(From Mod 1):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 1-00000

Emission Unit Description:

The Central Power Plant at NYU provides electricity and high temperature hot water and steam for heating and cooling of university buildings year round. Emission Unit 1-00000 located in the sub-basement of 251 Mercer Street is part of the Central Plant and currently has three identical mid size high temperature hot water boilers of 65 MM Btu/hr each (Emission Sources 0BLRA, 0BLRB & 0BLRC) used for hot water. Each boiler is capable of burning natural gas (Process 001) and # 2 fuel oil - distillate fuel oil (Process 006). Emissions from the three boilers are exhausted through a single emission point, a nine foot diameter stack on the roof of 251 Mercer Street, identified as Emission Point 00001. A licensed operating engineer is on duty at all times.

Also emitting through this emission point at the plant are two 5.5 MW gas turbines (Emission Sources TURB1 & TURB2) burning natural gas (Process 004) and # 2 ultra low sulfur distillate fuel oil (Process 005), and two 70 MM Btu/hr duct burners (Emission Controls DUCT1 & DUCT2) fueled by natural gas (Process 004) for cogeneration with the two turbines. The facility's electrical output is approximately 11 MW from the two turbines (2 @ 5.5 MW = 11 MW = 11 MW x 8,760 hours = 96,360 MWe-hrs). The two combustion turbines are identical, each is approximately 60.5 MM Btu/hr and each is equipped with a heat recovery steam generator (HRSG). Emissions from the two turbines co-exhaust with the boilers through the same single emission point identified as Emission Point 00001.



The two 5.5 MW gas turbines (Emission Sources TURB1 & TURB2), and their two corresponding 70 MM Btu/hr duct burners (Emission Controls DUCT1 & DUCT2; respectively) for cogeneration with the two turbines began operating December 2010 (though they were allowed to operate beginning June 30, 2010).

As per 6 NYCRR 227-1.4, COMS is required on combustion sources exceeding 250 MMBtu/hr heat input, excluding gas turbines. Heat input at Emission Point 00001 from the mid-size boilers (Emission Sources 0BLRA, 0BLRB & 0BLRC) @ 65 MMBtu/hr each total 195 MMBtu/hr (< 250 MMBtu/hr), therefore COMS is not required, but the existing continuous opacity monitoring system (COMS) unit will voluntarily remain on the stack of Emission Point 00001.

Since total heat input for the combustion sources (excluding gas turbines) is < 250 MM Btu/hr threshold, COMS is not required by opacity regulation 6 NYCRR 227-1.3 (a).

Building(s): 251

**Item 22.2(From Mod 1):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 2-00000

Emission Unit Description:

Emission Unit 2-00000, located in the Tisch Hall sub-basement of 40 West 4th Street, currently houses seven diesel-fired Caterpillar D399 engines (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) that have not been in operation since November 2013. These engines will be permanently removed on 2/4/2018 and be replaced with two new reciprocating internal combustion engines (Emission Sources ENG08 & ENG09) which will be installed on 2/1/2018 and into the same existing emission unit (Emission Unit 2-00000) and utilize the same existing stack and emission point (Emission Point 00002). One engine is defined as Emission Source ENG08, the 2.6 MW GE-Jenbacher / JSM-616 natural gas fired (Process JEN) lean burn engine with add-on selective catalytic reduction for NOx (Emission Control SCR08) and catalytic oxidation (Emission Control OXC08) for CO and VOC. The other engine is a Caterpillar / 3516C and is defined as Emission Source ENG09, is 2.5 MW fuel oil-fired (Process CAT) Tier 4



compression ignition engine for black start and utility demand programs with "built-in" catalyst-based emissions control (Emission Controls OXC09 and SCR09).

The existing COMS at Emission Point 00002 for the seven engines in Emission Unit 2-00000 will remain at the facility and the two new engines (Emission Sources ENG08 & ENG09) will utilize the same existing stack and emission point (Emission Point 00002).

The current NOx limit for the seven diesel-fired Caterpillar D399 engines in this emission unit is 13.9 tons per year. The new NOx emissions for the combined ENG08 and ENG09 will be capped at 11.83 tons per year.

Emission Controls (SCR08 & SCR09) are selective catalytic reduction for the two new engines (Emission Sources ENG08 & ENG09), respectively, and will reduce NOx emissions.

Emission Controls (OXC08 & OXC09) are oxidation catalysts for the two new engines (Emission Sources ENG08 & ENG09), respectively, and will reduce CO and VOC emissions.

The pre-netting total project NOx with all the controls will be 10.67 tpy of NOx for the GE-Jenbacher engine (Emission Source ENG08) firing natural gas at 8760 hr/yr (based on an arbitrary NOx emission factor for the JEN of 0.3 g/bhp-hr and operating 8760 hrs/yr), and 1.16 tpy for the Caterpillar / D3516C engine (Emission Source ENG09) firing distillate oil and capped at 500 hrs/yr, the sum of which exceeds the Significant Project Threshold (SPT) of 2.5 tpy, but is less than 25 tpy, which is the Significant Net Emission Increase Threshold (SNEIT). This is a modification to an existing major facility in a non-attainment area within the Ozone Transport Region according to 6 NYCRR 231-6. The facility is installing BACT-approved add-on pollution controls using selective catalytic reduction (SCR) for reducing NOx emissions, and oxidation catalysis for reducing CO & VOC emissions.

Based on an arbitrary NOx emission factor for the GE-Jenbacher engine of 0.3 g/bhp-hr and operating 8760 hrs/yr, and the NOx emissions for the Caterpillar engine, which is 1.16 tpy (4.63 lb/hr x 500 hours):

$$\begin{aligned} \text{NOx PTE for JEN} + \text{NOx PTE for CAT} &= \\ 10.67 + 1.16 &= 11.83 \text{ tpy of NOx} \end{aligned}$$



The Project's NO<sub>x</sub> PTE emissions is the sum of the PTE for the stationary spark ignited Jenbacher engine which is 10.67 tpy of NO<sub>x</sub> after adopting the new arbitrary emission factors, and the NO<sub>x</sub> PTE emissions for the stationary compression ignition Caterpillar engine, which is 1.16 tpy (4.63 lb/hr x 500 hours). Therefore, the project's NO<sub>x</sub> PTE:

$10.67 \text{ tpy} + 1.16 \text{ tpy} = 11.83 \text{ tpy}$  (23,660 lbs/yr).

The Net Emission Increase (NEI) has to be < Significant Emission Increase (SNEIT) of 25 tpy NO<sub>x</sub> for this project.

NEI = NO<sub>x</sub> emissions from GE-Jenbacher engine + NO<sub>x</sub> emissions from Caterpillar / D3516C engine =

NEI = 10.67 tpy + 1.16 tpy = 11.83 tpy < 25 tpy, but >2.5 tpy

Building(s): 40

**Condition 23: Progress Reports Due Semiannually**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (d) (4)**

**Item 23.1:**

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**Condition 1-3: Non Applicable requirements**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (g)**

**Item 1-3.1:**

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

(From Mod 1) 6 NYCRR Subpart 231-10  
Reason: Regulatory Applicability of New Source  
Review:



The new project is expected to go on-line February 2019. The five (5) year contemporaneous period is from February 2015 to February 2019, and the average of the highest 2 years emissions (2015 and 2016) is calculated.

As a result of this new project, there is no change or increase to the facility's total NOx emissions, and there is a decrease in NOx for the modified Emission Unit 2-0000.

The pre-netting total project NOx with all the built-in controls will be 10.67 tpy of NOx for the GE-Jenbacher engine (Emission Source ENG08) firing natural gas at 8760 hr/yr, and 1.16 tpy for the Caterpillar / D3516C engine (Emission Source ENG09) firing distillate oil and capped at 500 hrs/yr; this total NOx exceeds the Significant Project Threshold (SPT) of 2.5 tpy, but is less than 25 tpy, which is the Significant Net Emission Increase Threshold (SNEIT). This is a modification to an existing major facility in a non-attainment area within the Ozone Transport Region according to 6 NYCRR 231-6. The facility is installing BACT-approved add-on pollution controls using selective catalytic reduction (SCR) for reducing NOx emissions, and oxidation catalysis for reducing CO & VOC emissions.

The Project's NOx PTE emissions is the sum of the PTE for the stationary spark ignited Jenbacher engine which is 10.67 tpy of NOx after adopting the new arbitrary emission factors, and the NOx PTE emissions for the stationary compression ignition Caterpillar engine (OEM's 0.59 g/bhp-hr NOx emission factor), which is 1.16 tpy (4.63 lb/hr x 500 hours). Therefore, the project's NOx PTE is 10.67 tpy+ 1.16 tpy = 11.83 tpy (23,660 lbs/yr).

The Net Emission Increase (NEI) has to be < Significant Emission Increase (SNEIT) of 25 tpy NOx for this project.

NEI = NOx emissions from GE-Jenbacher engine + NOx emissions from Caterpillar / D3516C engine =  
NEI = 10.67 tpy + 1.16 tpy = 11.83 tpy < 25 tpy, but >2.5 tpy

**CONCLUSION:**

Based on an arbitrary NOx emission factor for the GE-Jenbacher engine of 0.3 g/bhp-hr (which is less than the New Source Performance Standard, NSPS) and operating 8760 hrs/yr, and the NOx emissions for the Caterpillar engine, which is 1.16 tpy (4.63 lb/hr x 500 hours):

NOx PTE for JEN + NOx PTE for CAT =

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10.67 + 1.16 = 11.83 tpy of NOx < 25 tpy, but >2.5 tpy.

Based on the Subpart 231□2 Netting Analysis, since the Net Emission Increase (NEI) is 11.83 which is >2.5 tpy and < 25 tpy for the Significant Net Emission Increase (SNEIT), this facility is NOT subject to Subpart 231□2.

ENG09 40 CFR 63.6590 (c) Emission Unit: 200000 Emission Point: 00002 Process: CAT Source:

Reason: NESHAPs for Stationary RICE at area sources of HAPs for new or reconstructed Reciprocating Internal Combustion Engine (RICE) is met by meeting the requirements of 40 CFR Part 60 Subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part.

Therefore, 40 CFR 63.6590 (c), Subpart ZZZZ is not applicable to the 2.5 MW Caterpillar D3516C Tier 4 compression ignition (Emission Source ENG09) ultra low-sulfur distillate fuel oil (Process CAT) fired Tier 4 compression ignition reciprocating internal combustion engine (RICE).

ENG08 40 CFR 63.6590 (c) Emission Unit: 200000 Emission Point: 00002 Process: JEN Source:

Reason: NESHAPs for Stationary RICE at area sources of HAPs for new or reconstructed Reciprocating Internal Combustion Engine (RICE) is met by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

Therefore, 40 CFR 63.6590 (c), Subpart ZZZZ is not applicable to the 2.6 MW GE-Jenbacher lean burn spark-ignited (Emission Source ENG08) natural gas-fired (Process JEN) lean burn reciprocating internal combustion engine (RICE).

Condition 25: Facility Permissible Emissions Effective between the dates of 09/29/2015 and 09/28/2020

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 25.1:

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



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the following

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

CAS No: 0NY210-00-0 (From Mod 1) PTE: 317,000 pounds per year

Name: OXIDES OF NITROGEN

Condition 1-4: Capping Monitoring Condition Effective between the dates of 01/23/2018 and 09/28/2020

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 1-4.1:

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:

6 NYCRR Subpart 231-2

Item 1-4.2:

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

Item 1-4.3:

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 1-4.4:

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 1-4.5:

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 1-4.6:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000 Process: CAT

Emission Point: 00002 Emission Source: ENG09



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Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: OXC09

Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: SCR09

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 1-4.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The hours of operation for the 2.5 MW Caterpillar / 3516C (Emission Source ENG09) ULSD fuel oil-fired (Process CAT) Tier 4 compression ignition engine for black start and utility demand programs, with "built-in" catalyst-based emissions controls (Emission Controls SCR09 and OXC09) is defined as Emission Source ENG09, and is capped at 500 hours per year.

Work Practice Type: HOURS PER YEAR OPERATION

Manufacturer Name/Model Number: Caterpillar / 3516C

Upper Permit Limit: 500 hours

Reference Test Method: Keep Records of Operating Hours

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: ANNUAL TOTAL ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

**Condition 1-5: Capping Monitoring Condition**

**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 1-5.1:**

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:

6 NYCRR Subpart 231-2

**Item 1-5.2:**

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

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## Item 1-5.3:

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 1-5.4:

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 1-5.5:

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 1-5.6:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: ENG09
Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: OXC09
Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: SCR09
Emission Unit: 2-00000 Process: JEN	Emission Point: 00002 Emission Source: ENG08
Emission Unit: 2-00000 Process: JEN	Emission Point: 00002 Emission Source: OXC08
Emission Unit: 2-00000 Process: JEN	Emission Point: 00002 Emission Source: SCR08

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

## Item 1-5.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

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



Monitoring Description:

Emission Unit 2-00000 is capping out of 6 NYCRR 231-2 by capping the NO<sub>x</sub> emissions to 11.83 tpy for the combined GE-Jenbacher / JSM-616 engine (Emission Source ENG08) and the Caterpillar / 3516C engine (Emission Source ENG09).

The facility will track the monthly natural gas usage to calculate the emissions of NO<sub>x</sub> on a 12-month rolling basis for the GE-Jenbacher / JSM-616 engine (Emission Source ENG08), and the ultra-low sulfur #2 distillate oil usage for the Caterpillar / 3516C engine to calculate the emissions of NO<sub>x</sub> on a 12-month rolling basis. The facility will ensure that the NO<sub>x</sub> emission rate at this emission unit is limited to below the 11.83 tpy (PTE). On an annual basis, the facility will submit a certification to the NYSDEC showing the facility has met this emission cap.

The owner or operator shall maintain a record of the quantity of the natural gas fired in the GE-Jenbacher / JSM-616 engine (Emission Source ENG08) and fuel oil in the Caterpillar / 3516C engine (Emission Source ENG09) in Emission Unit 2-0000. Also, the owner or operator shall calculate the annual NO<sub>x</sub> emissions (based on the fuel quantity) using the following approved NYSDEC emission factors and formula:

$G (EF-JEN) + D (EF-CAT) < 23,660 \text{ lbs/yr of Oxides of Nitrogen emissions.}$

Where:

G = 12-month rolling total of natural gas fired in the GE-Jenbacher / JSM-616 engine generator in cubic feet/yr.

EF-JEN = Emission Factor for the GE-Jenbacher / JSM-616 engine generator from AP-42 or stack testing or manufacturer's guarantee in lb of NO<sub>x</sub>/cubic feet of natural gas. NYU has chosen an emission factor of 0.3 g/bhp-hr for NO<sub>x</sub> for the GE-Jenbacher / JSM-616 engine generator to establish PTE, but will use the manufacturer's guaranteed emission factor until stack testing.

D = 12-month rolling total of ULSD oil fired in the Caterpillar / 3516C engine generators in gals/yr.

EF-CAT = Emission Factor for the Caterpillar / 3516C engine generator from AP-42 or stack testing or



manufacturer's guarantee in lb of NO<sub>x</sub>/gallon of ULSD oil. NYU has chosen the OEM's emission factor of 0.59 g/bhp-hr (equivalent to 4.63 lb/hr NO<sub>x</sub> emission limit) for the Caterpillar / 3516C engine generator based on the manufacturer's guarantee.

The #2 fuel oil allowed at the facility is the ULSD (ultra-low sulfur distillate oil #2), which contains no greater than 15 ppm or 0.0015 % maximum sulfur by weight).

The Project's NO<sub>x</sub> PTE emissions is the sum of the PTE for the stationary spark ignited Jenbacher engine which is 10.67 tpy (based on 8,760 hr/yr) of NO<sub>x</sub> after adopting the new arbitrary emission factors, and the NO<sub>x</sub> PTE emissions for the stationary compression ignition Caterpillar engine (choosing the manufacturer's 0.59 g/bhp-hr NO<sub>x</sub> emission limit), which is 1.16 tpy (4.63 lb/hr x 500 hours). Therefore; the project's NO<sub>x</sub> PTE is 10.67 tpy+ 1.16 tpy = 11.83 tpy (23,660 lbs/yr).

The NO<sub>x</sub> PTE emission is calculated to be 11.83 tpy of NO<sub>x</sub>, but the actual NO<sub>x</sub> emission (based on actual fuel consumption and OEM emission factors) is expected to be below 5.0 tpy.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 11.83 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL TOTAL ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

**Condition 26: Capping Monitoring Condition**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 26.1:**

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:

6 NYCRR Subpart 231-2

**Item 26.2:**

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

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**Item 26.3:**

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 26.4:**

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 26.5:**

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 26.6:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

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

**Item 26.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The facility's NO<sub>x</sub> emissions will not exceed 158.5 tpy. Computerized records will be kept on file, that calculate emissions based on equipment manufacturer's emissions factors, stack test results, and EPA emission factors.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 158.5 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2016.

Subsequent reports are due every 6 calendar month(s).

**Condition 27: Capping Monitoring Condition**  
**Effective between the dates of 09/29/2015 and 09/28/2020**



**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 27.1:**

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:

6 NYCRR Subpart 231-2

**Item 27.2:**

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

**Item 27.3:**

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 27.4:**

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 27.5:**

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 27.6:**

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

Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: DUCT1
Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: DUCT2
Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: TURB1
Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: TURB2
Emission Unit: 1-00000 Process: 005	Emission Point: 00001 Emission Source: TURB1

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Emission Unit: 1-00000  
Process: 005

Emission Point: 00001  
Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 27.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The two turbines (Emission Sources TURB1 and TURB2) have been operating since 6/30/2010). The total combined NOx emissions from the two turbines (Emission Sources TURB1 & TURB2) and their associated duct burners (Emission Controls DUCT1 & DUCT2; respectively) burning both natural gas (Process 004) and # 2 fuel oil (Process 005) are limited to an overall combined NOx emissions cap of 104.23 tpy. Each turbine has a maximum of 60.5 MM Btu/hr.

Potential to emit (PTE) for each of the two combustion turbines is based on the equivalent of combusting 9 months (6,570 hrs/yr) of natural gas, and 3 months of # 2 fuel oil (2,190 hrs/yr) or a ratio of 3:1 for natural gas to # 2 fuel oil. But, the facility does not have limitations based on hours of operation, the facility has limited emissions based on the calculated ton-per-year voluntary PTE.

Since both turbines combined have a NOx PTE based on operating on #2 fuel oil for 3 months and on natural gas for 9 months, then:

PTE (both turbines, #2 fuel oil only): 130.66 tpy

PTE (both turbines, natural gas only): 32.34 tpy

Thus, PTE NOx for both turbines combined =  $0.25 (130.66) + 0.75 (32.34) = 32.67 + 24.26 = 56.93$  tpy

Both HRSG duct burners (Emission Sources DUCT1 & DUCT2) combined will have a NOx PTE based on operating on natural gas for 12 months. Each duct burner has a maximum heat input of 70 MM Btu/hr. Since the HRSGs duct burners will never operate by themselves without the turbines, then:

PTE (both HRSG duct burners operating only on natural gas)  
: 47.30 tpy NOx





Thus, both turbines (Emission Sources TURB1 & TURB2) and their corresponding HRSG duct burners (Emission Controls DUCT1 & DUCT2) will have a NO<sub>x</sub> PTE = 56.93 + 47.30 = 104.23 tpy

The HRSG duct burners operate only when the turbines are operating; the duct burners do not operate independent of the turbines.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 104.23 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 7/30/2016.

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

**Condition 29: Capping Monitoring Condition**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR Subpart 201-7**

**Item 29.1:**

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:

6 NYCRR Subpart 231-2

**Item 29.2:**

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

**Item 29.3:**

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 29.4:**

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.

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**Item 29.5:**

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 29.6:**

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

Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: TURB1
Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: TURB2
Emission Unit: 1-00000 Process: 005	Emission Point: 00001 Emission Source: TURB1
Emission Unit: 1-00000 Process: 005	Emission Point: 00001 Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 29.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The two turbines (Emission Sources TURB1 and TURB2) have been operating since 6/30/2010). The total combined NOx emissions from the two turbines (Emission Sources TURB1 & TURB2) burning both natural gas (Process 004) and # 2 fuel oil (Process 005) are limited to an overall combined NOx emissions cap of 56.93 tpy. Each turbine has a maximum of 60.5 MM Btu/hr. The facility's NOx emissions will not exceed 158.5 tpy.

Potential to emit (PTE) for each of the two combustion turbines is based on the equivalent of combusting 9 months (6,570 hrs/yr) of natural gas, and 3 months of # 2 fuel oil (2,190 hrs/yr) or a ratio of 3:1 for natural gas to # 2 fuel oil. But, the facility does not have limitations based on hours of operation, the facility has limited the emissions based on the calculated ton-per-year voluntary PTE.

Since both turbines combined have a NOx PTE based on operating on #2 fuel oil for 3 months and on natural gas

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for 9 months, then:

PTE (both turbines, #2 fuel oil only): 130.66  
tpy  
PTE (both turbines, natural gas only): 32.34  
tpy

Thus, PTE NO<sub>x</sub> for both turbines combined = 0.25 (130.66)  
+ 0.75 (32.34) = 32.67 + 24.26 = 56.93 tpy

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 56.93 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 7/30/2016.

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

**Condition 31: Capping Monitoring Condition**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 31.1:**

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:

6 NYCRR Subpart 231-2

**Item 31.2:**

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

**Item 31.3:**

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 31.4:**

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.

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**Item 31.5:**

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 31.6:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 1-00000 Process: 001	Emission Point: 00001 Emission Source: 0BLRA
Emission Unit: 1-00000 Process: 001	Emission Point: 00001 Emission Source: 0BLRB
Emission Unit: 1-00000 Process: 001	Emission Point: 00001 Emission Source: 0BLRC
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRA
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRB
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRC
Regulated Contaminant(s): CAS No: 0NY210-00-0	OXIDES OF NITROGEN

**Item 31.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The three boilers @ 65 MM Btu/hr (Emission Sources 0BLRA, 0BLRB and 0BLRC) have an overall emissions cap for all parameters equivalent to the PTE emissions of two of the boilers, which for NO<sub>x</sub> is 40.4 tons/year. The three boilers may be used singularly or in any combination at different times. The cap applies to the overall combination of both fuels (natural gas & #2 fuel oil) and is not prorated for any single fuel.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Manufacturer Name/Model Number: INTERNATIONAL LFW-30  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 40.4 tons per year  
Monitoring Frequency: MONTHLY



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Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-6: Facility Permissible Emissions**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-7.1 (c) (1)**

**Item 1-6.1:**

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:

per year	CAS No: 000630-08-0 (From Mod 1)	PTE: 258,000 pounds
	Name: CARBON MONOXIDE	
per year	CAS No: 0NY210-00-0 (From Mod 1)	PTE: 317,000 pounds
	Name: OXIDES OF NITROGEN	
per year	CAS No: 0NY998-00-0 (From Mod 1)	PTE: 18,600 pounds
	Name: VOC	

**Condition 1-7: Capping Monitoring Condition**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 201-7.1 (c) (1)**

**Item 1-7.1:**

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:

6 NYCRR Subpart 231-2

**Item 1-7.2:**

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

**Item 1-7.3:**

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.

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## Item 1-7.4:

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 1-7.5:

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 1-7.6:

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

Emission Unit: 2-00000 Process: JEN	Emission Point: 00002 Emission Source: ENG08
Emission Unit: 2-00000 Process: JEN	Emission Point: 00002 Emission Source: OXC08
Emission Unit: 2-00000 Process: JEN	Emission Point: 00002 Emission Source: SCR08

Regulated Contaminant(s):  
CAS No: 0NY998-00-0    VOC

## Item 1-7.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.6 MW (equivalent to 2649 KW or to 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine Emission Source ENG08, natural gas fired spark-ignited (Process JEN) equipped with selective catalytic reduction for NO<sub>x</sub> (Emission Control SCR08) and catalytic oxidation for CO and VOC (Emission Control OXC08).

The NSPS Volatile Organic Compounds (VOC) limit for this engine is 0.7 g/bhp-hr or 60 ppmvd. NYU has chosen an arbitrary value of 0.3 g/bhp-hr to establish the PTE, though the anticipated actual value is 0.078 g/bhp-hr.

For establishing the PTE calculations, NYU has chosen an emission factor of 0.30 g/bhp-hr for VOC to be used in the

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emission calculations for the GE-Jenbacher / JSM-616 engine generator.

The owner or operator of a stationary SI internal combustion engine greater than 500 HP must conduct an initial performance test and must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Stack testing will be required in order to demonstrate compliance with the 0.3 grams per brake horsepower-hour VOC emission limit, which NYU has arbitrarily chosen, even though the VOC limit per 40 CFR 60.4243 (b) (2) (ii), NSPS Part JJJJ is 0.7 g/bhp-hr. The owner or operator must submit a stack test protocol to the Department for approval prior to testing. The owner or operator shall submit stack test results, to the Department for approval, within 60 days of stack test completion.

In addition, the owner or operator of a stationary SI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Manufacturer Name/Model Number: Jenbacher / JSM-616

Parameter Monitored: VOC

Upper Permit Limit: 0.30 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 1-8: Capping Monitoring Condition**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 201-7.1 (c) (1)**

**Item 1-8.1:**

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:

6 NYCRR Subpart 231-2

**Item 1-8.2:**



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

**Item 1-8.3:**

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 1-8.4:**

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 1-8.5:**

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 1-8.6:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: ENG08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: OXC08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: SCR08
Regulated Contaminant(s):	
CAS No: 0NY210-00-0	OXIDES OF NITROGEN

**Item 1-8.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.6 MW (equivalent to 2649 KW or to 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine Emission Source ENG08, natural gas fired spark-ignited (Process JEN) equipped with selective catalytic reduction for NOx (Emission Control SCR08) and catalytic oxidation for CO and VOC (Emission Control OXC08).



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The NSPS Oxides of Nitrogen (NO<sub>x</sub>) limit for this engine is 1.0 g/bhp-hr or 82 ppmvd. NYU has chosen an arbitrary value of 0.3 g/bhp-hr to establish the PTE, though the post-control anticipated actual value is expected to be 0.078 g/bhp-hr.

For establishing the PTE calculations, NYU has chosen an emission factor of 0.30 g/bhp-hr for NO<sub>x</sub> is used in the emission calculations for the GE-Jenbacher / JSM-616 engine generator.

The owner or operator of a stationary SI internal combustion engine greater than 500 HP must conduct an initial performance test and must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Stack testing will be required in order to demonstrate compliance with the 0.3 grams per brake horsepower-hour NO<sub>x</sub> emission limit, which NYU has arbitrarily chosen, even though the NO<sub>x</sub> limit per 40 CFR 60.4243 (b) (2) (ii), NSPS Part JJJJ is 1.0 g/bhp-hr. The owner or operator must submit a stack test protocol to the Department for approval prior to testing. The owner or operator shall submit stack test results, to the Department for approval, within 60 days of stack test completion.

In addition, the owner or operator of a stationary SI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Manufacturer Name/Model Number: Jenbacher / JSM-616

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.30 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 1-9: Capping Monitoring Condition**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 201-7.1 (c) (1)**



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**Item 1-9.1:**

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:

6 NYCRR Subpart 231-2

**Item 1-9.2:**

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

**Item 1-9.3:**

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 1-9.4:**

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 1-9.5:**

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 1-9.6:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000  
Process: JEN

Emission Point: 00002  
Emission Source: ENG08

Emission Unit: 2-00000  
Process: JEN

Emission Point: 00002  
Emission Source: OXC08

Emission Unit: 2-00000  
Process: JEN

Emission Point: 00002  
Emission Source: SCR08

Regulated Contaminant(s):  
CAS No: 000630-08-0 CARBON MONOXIDE

**Item 1-9.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

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Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.6 MW (equivalent to 2649 KW or to 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine Emission Source ENG08, natural gas fired spark-ignited (Process JEN) equipped with selective catalytic reduction for NO<sub>x</sub> (Emission Control SCR08) and catalytic oxidation for CO and VOC (Emission Control OXC08).

The NSPS Carbon Monoxide (CO) limit for this engine is 2.0 g/bhp-hr or 270 ppmvd. NYU has chosen an arbitrary value of 0.3 g/bhp-hr to establish the PTE, though the anticipated actual value is 0.156 g/bhp-hr.

For establishing the PTE calculations, NYU has chosen an emission factor of 0.30 g/bhp-hr for CO to be used in the emission calculations for the GE-Jenbacher / JSM-616 engine generator.

The owner or operator of a stationary SI (Spark Ignited) internal combustion engine greater than 500 HP must conduct an initial performance test and must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Stack testing will be required in order to demonstrate compliance with the 0.3 grams per brake horsepower-hour CO emission limit, which NYU has arbitrarily chosen, even though the CO limit per 40 CFR 60.4243 (b) (2) (ii), NSPS Part JJJJ is 2.0 g/bhp-hr. The owner or operator must submit a stack test protocol to the Department for approval prior to testing. The owner or operator shall submit stack test results, to the Department for approval, within 60 days of stack test completion.

In addition, the owner or operator of a stationary SI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Manufacturer Name/Model Number: Jenbacher / JSM-616

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 0.30 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

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METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 32: Air pollution prohibited**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 32.1:**

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 1-10: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 225-1.2**

**Item 1-10.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09
Regulated Contaminant(s):	
CAS No: 007446-09-5	SULFUR DIOXIDE

**Item 1-10.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510 (b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used

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until depleted.

In accordance with 40CFR80.510 (b), except as otherwise specifically provided in 40CFR 80, Subpart I, all non-road diesel fuel is subject to the following per-gallon standards:

(1) Sulfur content.

(i) 15 ppm maximum for NR diesel fuel.

(2) Cetane index or aromatic content, as follows:

(i) A minimum cetane index of 40; or

(ii) A maximum aromatic content of 35 volume percent.

To demonstrate compliance, the facility shall obtain from the fuel supplier a certification that verifies that each batch of fuel delivered for use in the engines meets the requirements of §80.510 (b) and the sampling and testing requirements of 40CFR 80, Subpart A and 40CFR 80.585, respectively. All records shall be maintained onsite for 5 years and shall be readily available for review by NYSDEC and/or USEPA representatives upon request.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Manufacturer Name/Model Number: Caterpillar / 3516C

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15 parts per million by weight

Reference Test Method: Test Method Approved under Part 80.585

Monitoring Frequency: PER BATCH OF PRODUCT/RAW MATERIAL CHANGE

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

**Condition 33: Compliance Certification**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 225-1.2 (f)**

**Item 33.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

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**Item 33.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Owners and/or operators of commercial, industrial, or residential emission sources that fire # 2 heating oil on or after July 1, 2012 are limited to the purchase of number two heating oil with 0.0015 percent sulfur by weight or less. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.0015 percent by weight

Monitoring Frequency: PER DELIVERY

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 34: Compliance Certification**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 225-1.2 (g)**

**Item 34.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 34.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Owners and/or operators of a stationary combustion installation that fires distillate oil other than # 2

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heating oil are limited to the purchase of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2014. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL  
Parameter Monitored: SULFUR CONTENT  
Upper Permit Limit: 0.0015 percent by weight  
Monitoring Frequency: PER DELIVERY  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 35: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 225-1.2 (h)**

**Item 35.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 35.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Owners and/or operators of a stationary combustion installations that fire distillate oil ( # 2 fuel oil) are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2016. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such



records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL  
Parameter Monitored: SULFUR CONTENT  
Upper Permit Limit: 0.0015 percent by weight  
Monitoring Frequency: PER DELIVERY  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 36: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 225-1.6**

**Item 36.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 36.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

§225-1.6 Reports, sampling, and analysis.

(a) The department will require fuel analyses, information on the quantity of fuel received, fired or sold, and results of stack sampling, stack monitoring, and other procedures to ensure compliance with the provisions of this Subpart.

(b) (1) Any person who sells oil and/or coal must retain, for at least five years, records containing the following information:

(i) fuel analyses and data on the quantities of all oil and coal received; and

(ii) the names of all purchasers, fuel analyses, and data on the quantities of all oil and coal sold.

(2) Such fuel analyses must contain, as a minimum:

(i) data on the sulfur content, ash content, specific





gravity, and heating value of residual oil;

(ii) data on the sulfur content, specific gravity, and heating value of distillate oil; and

(iii) data on the sulfur content, ash content, and heating value of coal.

(c) Sampling, compositing, and analysis of fuel samples must be done in accordance with methods acceptable to the department.

(d) Facility owners or fuel distributors required to maintain and retain records pursuant to this Subpart must make such records available for inspection by the department.

(e) Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the department, and must be retained for at least five years. The owner of a Title V facility must furnish to the department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the department.

(f) Facility owners subject to this Subpart must submit a written report of the fuel sulfur content exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable equivalent emission rate, and the nature and cause of such exceedances if known, for each calendar quarter, within 30 days after the end of any quarterly period in which an exceedance takes place.

Monitoring Frequency: PER DELIVERY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 37: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 225.7 (a)**

**Item 37.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 37.2:**

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Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The permittee shall retain fuel oil supplier certifications for each shipment of oil received. Such certifications shall contain, as a minimum, supplier name, date of shipment, quantity shipped, heating value of the oil, oil sulfur content, and the method used to determine the sulfur content. Such certifications shall be available for inspection by, or submitted to, the NYSDEC as per the stated reporting requirement.

Monitoring Frequency: PER DELIVERY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2016.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-11: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.3**

**Item 1-11.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 1-11.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operators of oil-fired internal combustion engines 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 internal combustion engine

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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:

- weather condition
- was a plume observed?

This logbook must be retained at the facility for five (5) years after the date of the last entry.

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.

Manufacturer Name/Model Number: Caterpillar / 3516C

Monitoring Frequency: DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

**Condition 38: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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**Applicable Federal Requirement:6 NYCRR 227-1.3**

**Item 38.1:**

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

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: TURB1

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY075-00-0      PARTICULATES

**Item 38.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No owner or operator of a combustion installation shall emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average.

The existing continuous opacity monitoring system (COMS) unit will remain on the stack of Emission Point 00001 for voluntary monitoring since COMS is not required by this opacity regulation.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
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 10/30/2015.  
Subsequent reports are due every 3 calendar month(s).

**Condition 39: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.3**

**Item 39.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 39.2:**

Compliance Certification 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?

Incident 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.

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

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stack.

Monitoring Frequency: DAILY  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2016.  
Subsequent reports are due every 6 calendar month(s).

**Condition 1-12: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-1.3 (a)**

**Item 1-12.1:**

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

Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: ENG09
Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: OXC09
Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: SCR09

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 1-12.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one-six-minute period per hour of not more than 27 percent opacity.

The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

The permittee will conduct observations of visible emissions from the emission unit, process, etc. to which this condition applies at the monitoring frequency stated below while the process is in operation. The permittee will investigate, in a timely manner, any instance where there is cause to believe that visible emissions have the potential to exceed the opacity standard.

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The permittee shall investigate the cause, make any necessary corrections, and verify that the excess visible emissions problem has been corrected. If visible emissions with the potential to exceed the standard continue, the permittee will conduct a Method 9 assessment within the next operating day of the sources associated with the potential noncompliance to determine the degree of opacity and will notify the NYSDEC if the method 9 test indicates that the opacity standard is not met.

Records of visible emissions observations (or any follow-up method 9 tests), investigations and corrective actions will be kept on-site. Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Manufacturer Name/Model Number: Caterpillar / 3516C

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: DAILY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

**Condition 40: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-1.4 (b)**

**Item 40.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 40.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a stationary combustion installation which utilizes a continuous opacity monitoring system (COMS) shall include the following in their quarterly excess emission reports:

- 1) Magnitude, date, and time of each exceedence;
- 2) For each period of excess emissions, specific

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identification of the cause and corrective action taken;

3) Date, time, and duration of each period of COMS downtime, and the corrective action for each period of downtime;

4) Total time the COMS is required to record data during the reporting period;

5) The total number of exceedences and the duration of exceedences expressed as a percentage of the total time in which the COMS are required to record data; and

6) Such other requirements as the Department may deem necessary in order to enforce Article 19 of the Environmental Conservation Law (ECL).

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2015.

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

**Condition 41: Compliance Certification**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.6 (a)**

**Item 41.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 41.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any facility found in violation of the provisions of this Part shall not cause, permit, or allow the operation of the affected stationary combustion installation unless:

1. It is equipped with approved emission control equipment;
  2. It is rehabilitated or upgraded in an approved manner;
- or
3. the fuel is changed to an acceptable type.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 42: Corrective action.**



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**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.6 (b)**

**Item 42.1:**

The commissioner may seal such stationary combustion installation so as to prevent any operation if the conditions of paragraphs 6 NYCRR Part 227-1.6(a)(1)-(3) are not met within the time provided by the order of final determination issued in the case of the violation.

**Condition 43: Corrective action.**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.6 (c)**

**Item 43.1:**

No person shall cause, permit, or allow the operation of any affected stationary combustion installation sealed by the commissioner in accordance with this section.

**Condition 44: Corrective action.**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.6 (d)**

**Item 44.1:**

No person except the commissioner or his representative shall remove, tamper with, or destroy any seal affixed to any affected stationary combustion installation.

**Condition 45: Compliance Certification**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-2.4 (c) (1) (ii)**

**Item 45.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 1-00000  
Process: 001

Emission Point: 00001  
Emission Source: 0BLRA

Emission Unit: 1-00000  
Process: 001

Emission Point: 00001  
Emission Source: 0BLRB

Emission Unit: 1-00000  
Process: 001

Emission Point: 00001  
Emission Source: 0BLRC

Emission Unit: 1-00000  
Process: 006

Emission Point: 00001  
Emission Source: 0BLRA

Emission Unit: 1-00000  
Process: 006

Emission Point: 00001  
Emission Source: 0BLRB

Emission Unit: 1-00000

Emission Point: 00001

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Process: 006

Emission Source: 0BLRC

Regulated Contaminant(s):

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

**Item 45.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

NYU's Central Plant is required to perform testing the three mid size boilers, the three 65 MM Btu/hr International LFW-30 each boilers (Emission Sources 0BLRA, 0BLRB & 0BLRC) to verify the NO<sub>x</sub> emission limit compliance. A mid-size boiler is a boiler with a maximum heat input capacity greater than 25 million Btu per hour and equal to or less than 100 million Btu per hour. All three boilers operate on natural gas (Process 001) and on #2 ultra low sulfur distillate fuel oil (Process 006). Process 006 replaced #6 fuel oil (Process 002) which began on 7/1/2014 when Process 002 terminated.

This condition applies to distillate oil/gas fired mid-size boilers (> 25 and equal to or <100 MM Btu/hr). The owner or operator shall submit a testing protocol to the Department for approval a minimum of 30 days prior to any stack testing.

The compliance deadline, with the emission limitation listed in this condition, is July, 1 2014. Compliance with the monitoring, record keeping, or reporting requirements listed in this condition begins on July, 1 2014.

On or after July 1, 2014, the owner/operator of mid-size boilers (> 25 and equal to or <100 MM Btu/hr) boilers operating on distillate oil/natural gas have a new limit of 0.20 pounds of NO<sub>x</sub> per million Btus under the NO<sub>x</sub> RACT plan for mid-size boilers and Fuel Switching Compliance Option.

Emission test requirements: The owner/operator of a source required to conduct an emission test under subdivision (c) of 6 NYCRR 227-2.6 must:

1. Submit a compliance test protocol to the Department for approval at least 30 days prior to emission testing. The conditions of the testing and the locations of the sampling devices must be acceptable to the department; and
2. Utilize procedures set forth in 40 CFR Part 60,



Appendix A or any other method acceptable to the Department and EPA for determining compliance with the appropriate NO<sub>x</sub> limit in section 227-2.4 of this Subpart, and must follow the procedures set forth in Part 202 of this Title.

i. For mid-size boilers (> 25 and equal to or <100 MM Btu/hr) boilers, utilize Method 7, 7E, or 19 from 40 CFR Part 60, Appendix A or another reference method approved by the Department.

3. Submit a compliance test report containing the results of the emission test to the Department no later than 60 days after the completion of the emission test.

This condition applies to the three mid size boilers, the three 65 MM Btu/hr International LFW-30 each boilers (Emission Sources 0BLRA, 0BLRB & 0BLRC) to verify the NO<sub>x</sub> emission limit compliance to verify the NO<sub>x</sub> emission limit compliance.

The owner or operator will maintain records on-site for a minimum of five years.

2014 NO<sub>x</sub> RACT rule Plan - Fuel Switching Compliance Option:

A facility that recently has been firing # 6 fuel oil/gas can opt to switch to #2 fuel oil/gas and still will require to meet the new NO<sub>x</sub> emission limit of # 6 fuel oil/gas only and not the new # 2 fuel oil/gas emission limit, even though they will be firing #2 fuel oil, which is a cleaner fuel and it is their option to burn. For example, a mid-size boiler that recently has been firing #6 fuel oil/gas will require to meet 0.2 lbs/MMBtu upon switching to # 2 fuel oil/gas and not the 0.08 lb/MMBtu which is for the #2 fuel oil.

Please see related Condition # 48 for 6 NYCRR 227-2.5 (a).

Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 0.20 pounds per million Btus  
Reference Test Method: 40 CFR 60 Appendix A - Method 7, 7E, or 19  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 2/29/2016.  
Subsequent reports are due every 6 calendar month(s).

**Condition 1-13: Compliance Certification**

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**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-2.4 (f) (1)**

**Item 1-13.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000

Process: JEN

Emission Point: 00002

Emission Source: ENG08

Emission Unit: 2-00000

Process: JEN

Emission Point: 00002

Emission Source: OXC08

Emission Unit: 2-00000

Process: JEN

Emission Point: 00002

Emission Source: SCR08

Regulated Contaminant(s):

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

**Item 1-13.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.6 MW GE-Jenbacher / JSM-616 lean burn spark ignited engine Emission Source ENG08 (equivalent to 2649 KW or to 4.55 MMBtu/hr) natural gas fired spark-ignited (Process JEN) equipped with selective catalytic reduction (Emission Control SCR08) for NOx and oxidation catalysis (Emission Control OXC08) for CO and VOC.

Stack testing will be required in order to demonstrate compliance with the 1.5 grams per brake horsepower-hour NOx emission limit. The owner or operator must submit a stack test protocol to the Department for approval prior to testing. The owner or operator shall submit stack test results, to the Department for approval, within 60 days of stack test completion.

The NYSDEC implemented regulation 6 NYCRR 227-2.4(f) for controlling NOx emissions from such engines, which requires engine owners and operates to have a plan in place for a reduced rate of NOx emissions.

(f) Stationary internal combustion engines.

The owner or operator of a stationary internal combustion engine either having a maximum mechanical output rating equal to or greater than 200 brake horsepower in a severe ozone nonattainment area or having a maximum mechanical



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output rating equal to or greater than 400 brake horsepower outside a severe ozone nonattainment area must comply with one of the emission limits in paragraph (1), (2), or (3) of this subdivision or a case-by-case RACT determination made pursuant to paragraph (4) of this subdivision, as applicable:

(1) For internal combustion engines fired solely with natural gas: 1.5 grams per brake horsepower-hour.

Compliance with this NOx RACT emission limit regulatory standard for a lean burn internal combustion ignition source must be determined with a one hour average in accordance with section 227-2.6(a)(7) of this Subpart unless the owner or operator chooses to use a CEMS under the provisions of section 227- 2.6(b) of this Subpart of this Subpart apply, including the use of a 24-hour averaging period.

Manufacturer Name/Model Number: GE-Jenbacher / JSM-616  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 1.5 grams per brake horsepower-hour  
Reference Test Method: 40 CFR Part 60, Appendix A, Method 7, or 7E, or 19  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-14: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-2.4 (f) (3)**

**Item 1-14.1:**  
The Compliance Certification activity will be performed for the facility:  
The Compliance Certification applies to:

Emission Unit: 2-00000                      Emission Point: 00002  
Process: CAT                                      Emission Source: ENG09

Emission Unit: 2-00000                      Emission Point: 00002  
Process: CAT                                      Emission Source: OXC09

Emission Unit: 2-00000                      Emission Point: 00002  
Process: CAT                                      Emission Source: SCR09

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN



**Item 1-14.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.5 MW Caterpillar / 3516C (equivalent to 2500 KW or to 3627 HP) fuel oil-fired (Process CAT) Tier 4 compression ignition engine defined as Emission Source ENG09, for black start and utility demand programs with "built-in" catalyst-based emissions control (Emission Control OXC09) and selective catalytic reduction (Emission Control SCR09).

Stack testing will be required in order to demonstrate compliance with the 2.3 grams per brake horsepower-hour NOx RACT emission limit in the severe ozone non-attainment area. The owner or operator must submit a stack test protocol to the Department for approval prior to testing. The owner or operator shall submit stack test results, to the Department for approval, within 60 days of stack test completion.

The NYSDEC implemented regulation 6 NYCRR 227-2.4(f) for controlling NOx emissions from such engines, which requires engine owners and operates to have a plan in place for a reduced rate of NOx emissions.

(f) Stationary internal combustion engines.

The owner or operator of a stationary internal combustion engine either having a maximum mechanical output rating equal to or greater than 200 brake horsepower in a severe ozone nonattainment area or having a maximum mechanical output rating equal to or greater than 400 brake horsepower outside a severe ozone nonattainment area must comply with one of the emission limits in paragraph (1), (2), or (3) of this subdivision or a case-by-case RACT determination made pursuant to paragraph (4) of this subdivision, as applicable:

(3) For internal combustion engine fired with distillate oil (solely or in combination with other fuels): 2.3 grams per brake horsepower-hour.

Compliance with this NOx RACT emission limit regulatory standard for a lean burn internal combustion ignition source must be determined with a one hour average in accordance with section 227-2.6(a)(7) of this Subpart unless the owner or operator chooses to use a CEMS under the provisions of section 227- 2.6(b) of this Subpart of this Subpart apply, including the use of a 24-hour

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averaging period.

Manufacturer Name/Model Number: Caterpillar / 3516C

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.3 grams per brake horsepower-hour

Reference Test Method: 40 CFR Part 60, Appendix A, Method 7, or 7E, or 19

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2018.

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

**Condition 49: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-2.5 (a)**

**Item 49.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 1-00000 Process: 001	Emission Point: 00001 Emission Source: 0BLRA
Emission Unit: 1-00000 Process: 001	Emission Point: 00001 Emission Source: 0BLRB
Emission Unit: 1-00000 Process: 001	Emission Point: 00001 Emission Source: 0BLRC
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRA
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRB
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRC

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 49.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

- (a) Fuel switching option. The owner or operator of an emission source subject to this Subpart may commit to burning a cleaner fuel between May 1st and September 30th



of each year. Fuel switching must result in quantifiable annual NO<sub>x</sub> emissions equal to or less than the NO<sub>x</sub> emissions expected if the emission source complied with the applicable presumptive RACT emission limits set forth in section 227-2.4 of this Subpart.

NYU commits to burning a cleaner fuel between May 1st and September 30th of each year. Fuel switching will result in quantifiable annual NO<sub>x</sub> emissions less than if the emission source complied with the applicable presumptive RACT limit set forth in section 227-2.4: the anticipated emission rate for firing distillate fuel oil is 0.08 pounds of NO<sub>x</sub> per million Btus, which is less than half that for presumptive RACT for residual fuel oil which is 0.20 pounds of NO<sub>x</sub> per million Btus.

2014 NO<sub>x</sub> RACT rule Plan - Fuel Switching Compliance Option:

A facility that recently has been firing # 6 fuel oil/gas can opt to switch to #2 fuel oil/gas and still will require to meet the new NO<sub>x</sub> emission limit of # 6 fuel oil/gas only and not the new # 2 fuel oil/gas emission limit, even though they will be firing #2 fuel oil, which is a cleaner fuel and it is their option to burn. For example, a mid-size boiler that recently has been firing #6 fuel oil/gas will require to meet 0.2 lbs/MMBtu upon switching to # 2 fuel oil/gas and not the 0.08 lb/MMBtu which is for the #2 fuel oil.

Compliance with the 0.20 lbs/MM Btus emission limit shall be determined with a one hour average in accordance with section 227-2.6 (a) (3) (i) of this Subpart unless the owner/operator opts to utilize CEMS under the provisions of section 227-2.6 (a) (3) (ii) of this Subpart. If CEMS are utilized, the requirements of section 227-2.6 (b) of this Subpart apply, including the use of a 24 hour averaging period.

This condition applies to the three mid-size boilers (Emission Sources 0BLRA, 0BLRB & 0BLRC). The three boilers are International boilers and are rated at 65 MM Btu/hr each, burning natural gas (Process 001) and #2 distillate fuel oil (Process 006).

A mid-size boiler is defined as a boiler with a maximum heat input capacity greater than 25 million Btu per hour and equal to or less than 100 million Btu per hour.

Please see related Condition # 45 for 6 NYCRR 227-2.4(c)(1)(ii).



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Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 0.20 pounds per million Btus  
Reference Test Method: 40 CFR 60 Appendix A, Method 7, 7E or 19  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 2/29/2016.  
Subsequent reports are due every 6 calendar month(s).

**Condition 50: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-2.5 (c)**

**Item 50.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 50.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

(c) For those sources for which the owner or operator demonstrates that the applicable presumptive RACT emission limit in section 227-2.4 of this Subpart is not economically or technically feasible, the owner or operator can request the department to set a higher emission source specific emission limit. Economic or technical feasibility must be demonstrated through an analysis that includes, at a minimum, an evaluation of the use of fuel switching the use of a system averaging plan, and implementation of any available control technologies (including, for example, selective catalytic reduction).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 1-15: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227.2 (b) (1)**

**Item 1-15.1:**

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

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Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: ENG09

Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: OXC09

Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: SCR09

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 1-15.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The two hour average emission of particulates from this stationary combustion installation shall not exceed 0.10 pounds per million Btu of heat input.

During the term of this permit, the facility shall perform the following:

1. Submit to the Department an acceptable protocol for the testing of particulate emissions in a manner that will determine compliance with the limit cited in this condition.
2. Perform a stack test, based upon the approved test protocol, to determine compliance with the particulate emission limit cited in this condition.
3. Submit an acceptable stack test report that outlines the results obtained from the testing done to meet the requirement of #2 above.
4. Facility shall keep records of all testing done at this stationary combustion installation for a period of 5 years.

This condition applies to Emission Unit: 2-00000, EP: 00002, Process: CAT (# 2 diesel fuel oil), and the 2.5 MW fuel oil-fired (Process CAT) Tier 4 compression ignition engine (Emission Source ENG09) for black start and utility demand programs, with "built-in" catalyst-based emissions control (Emission Control OXC09) for reducing CO and VOC emission.

Manufacturer Name/Model Number: Caterpillar / 3516C  
Parameter Monitored: PARTICULATES

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Upper Permit Limit: 0.10 pounds per million Btus  
Reference Test Method: EPA RM 5  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 52: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227.2 (b) (1)**

**Item 52.1:**

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

Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRA
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRB
Emission Unit: 1-00000 Process: 006	Emission Point: 00001 Emission Source: 0BLRC

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 52.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The two hour average emission of particulates from this stationary combustion installation shall not exceed 0.10 pounds per million Btu of heat input.

During the term of this permit, the facility shall perform the following:

1. Submit to the Department an acceptable protocol for the testing of particulate emissions in a manner that will determine compliance with the limit cited in this condition.
2. Perform a stack test, based upon the approved test protocol, to determine compliance with the particulate emission limit cited in this condition.
3. Submit an acceptable stack test report that outlines the results obtained from the testing done to meet the requirement of #2 above.



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4. Facility shall keep records of all testing done at this stationary combustion installation for a period of 5 years.

This condition applies to Emission Unit: 1-00000, EP: 00001, Process: 006 (# 2 diesel fuel oil), and the three identical mid size high temperature hot water boilers of 65 MM Btu/hr each (Emission Sources: OBLRA, OBLRB & OBLRC) used for hot water.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: EPA RM 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 54: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227.2 (b) (1)**

**Item 54.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 1-00000	Emission Point: 00001
Process: 005	Emission Source: DUCT1
Emission Unit: 1-00000	Emission Point: 00001
Process: 005	Emission Source: DUCT2
Emission Unit: 1-00000	Emission Point: 00001
Process: 005	Emission Source: TURB1
Emission Unit: 1-00000	Emission Point: 00001
Process: 005	Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 54.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The two hour average emission of particulates from this stationary combustion installation shall not exceed 0.10 pounds per million Btu of heat input.

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During the term of this permit, the facility shall perform the following:

1. Submit to the Department an acceptable protocol for the testing of particulate emissions in a manner that will determine compliance with the limit cited in this condition.
2. Perform a stack test, based upon the approved test protocol, to determine compliance with the particulate emission limit cited in this condition.
3. Submit an acceptable stack test report that outlines the results obtained from the testing done to meet the requirement of #2 above.
4. Facility shall keep records of all testing done at this stationary combustion installation for a period of 5 years.

This condition applies to the two 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 1 & turbine # 2 (Emission Sources TURB1 & TURB2) in Emission Unit: 1-00000, EP: 00001, firing # 2 distillate fuel oil (Process 005) with their corresponding duct burners (Emission Controls DUCT1 & DUCT2; respectively).

Parameter Monitored: PARTICULATES  
 Upper Permit Limit: 0.10 pounds per million Btus  
 Reference Test Method: EPA RM 5  
 Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
 Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
 Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 1-16: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR Subpart 231-6**

**Item 1-16.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09

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Emission Unit: 2-00000  
Process: JEN

Emission Point: 00002  
Emission Source: ENG08

Emission Unit: 2-00000  
Process: JEN

Emission Point: 00002  
Emission Source: OXC08

Emission Unit: 2-00000  
Process: JEN

Emission Point: 00002  
Emission Source: SCR08

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 1-16.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

As a result of this new project, there is no change or increase to the facility's total NOx emissions, and there is a decrease in NOx for the modified Emission Unit 2-0000. The current NOx limit for Emission Unit 2-0000 with the seven old diesel-fired Caterpillar D399 engines is 13.9 tons per year. The new NOx emissions from the two new reciprocating engines (Emission Sources ENG08 & ENG09) will be capped at 11.83 tons per year. These two engines are the 2.6 MW GE-Jenbacher / JSM-616 natural gas fired (Process JEN) lean burn spark-ignited engine with add-on selective catalytic reduction for NOx (Emission Control SCR08) and catalytic oxidation (Emission Control OXC08) for CO and VOC. The other engine is a Caterpillar / 3516C, defined as Emission Source ENG09, a 2.5 MW ultra-low sulfur distillate fuel oil fired (Process CAT) Tier 4 compression ignition engine serving as dispatch for black start power and utility demand response programs for the plant with "built-in" catalyst-based emissions control (Emission Controls OXC09 and SCR09).

The emissions from the two engines exhaust through a common stack identified as Emission Point 00002. The hours of operation will be capped at 500 per year for the Caterpillar engine (Emission Source ENG09).

Regulatory Applicability:

The NOx emissions from the two (2) new reciprocating engines (Emission Sources ENG08 & ENG09) in Emission Unit 2-0000 will be capped at 11.83 tons per year. The pre-netting total project NOx with all the controls will be 10.67 tpy of NOx for the GE-Jenbacher engine (Emission



Source ENG08) firing natural gas based on 8760 hr/yr, and 1.16 tpy for the Caterpillar D3516C engine (Emission Source ENG09) firing distillate oil and capped at 500 hrs/yr, the sum of which exceeds the Significant Project Threshold (SPT) of 2.5 tpy, but is less than 25 tpy, the Significant Net Emission Increase Threshold (SNEIT). This is a modification to an existing major facility in a non-attainment area within the Ozone Transport Region according to 6 NYCRR 231-6. The facility is installing BACT-approved add-on pollution controls using selective catalytic reduction (SCR) for reducing NO<sub>x</sub> emissions, and oxidation catalysis for reducing CO & VOC emissions.

The spark ignited GE-Jenbacher engine is a natural gas-fired engine with add-on pollution control using SCR, and will require monthly monitoring and record keeping of NO<sub>x</sub> emissions based on the manufacturer's emission factors and fuel use (consumption). The compression ignition Caterpillar engine is ultra-low sulfur distillate fuel oil fired and its operation will be capped at 500 per year.

The pre-netting total project NO<sub>x</sub> with all the built-in controls will be 10.67 tpy of NO<sub>x</sub> for the GE-Jenbacher engine (Emission Source ENG08) firing natural gas at 8760 hr/yr (based on an arbitrary NO<sub>x</sub> emission factor for the Jenbacher of 0.3 g/bhp-hr and operating 8760 hrs/yr), and 1.16 tpy for the Caterpillar / D3516C engine (Emission Source ENG09) firing distillate oil and capped at 500 hrs/yr with a NO<sub>x</sub> emission factor of 0.59 g/bhp-hr, the sum of which exceeds the Significant Project Threshold (SPT) of 2.5 tpy, but is less than 25 tpy, which is the Significant Net Emission Increase Threshold (SNEIT). This is a modification to an existing major facility in a non-attainment area within the Ozone Transport Region according to 6 NYCRR 231-6. The facility is installing BACT-approved add-on pollution controls using selective catalytic reduction (SCR) for reducing NO<sub>x</sub> emissions, and oxidation catalysis for reducing CO & VOC emissions.

Based on an arbitrary NO<sub>x</sub> emission factor for the GE-Jenbacher engine of 0.3 g/bhp-hr and operating 8760 hrs/yr, and the NO<sub>x</sub> emissions for the Caterpillar engine (choosing NO<sub>x</sub> emission limit of 0.59 g/bhp-hr), which is 1.16 tpy (4.63 lb/hr x 500 hours):

$$\begin{aligned} \text{NO}_x \text{ PTE for JEN} + \text{NO}_x \text{ PTE for CAT} &= \\ 10.67 + 1.16 &= 11.83 \text{ tpy of NO}_x \end{aligned}$$

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The Project's NOx PTE emissions is the sum of the PTE for the stationary spark ignited Jenbacher engine which is 10.67 tpy of NOx after adopting the new arbitrary emission factors, and the NOx PTE emissions for the stationary compression ignition Caterpillar engine with a NOx emission factor of 0.59 g/bhp-hr, which is 1.16 tpy (4.63 lb/hr x 500 hours). Therefore, the project's NOx PTE is 10.67 tpy+ 1.16 tpy = 11.83 tpy (23,660 lbs/yr).

The Net Emission Increase (NEI) has to be < Significant Emission Increase (SNEIT) of 25 tpy NOx for this project.

NEI = NOx emissions from GE-Jenbacher engine + NOx emissions from Caterpillar / D3516C engine =

NEI = 10.67 tpy + 1.16 tpy = 11.83 tpy < 25 tpy, but >2.5 tpy

CONCLUSION:

Based on the Subpart 231.2 Netting Analysis, since the Net Emission Increase (NEI) is < Significant Net Emission Increase Threshold (SNEIT), this facility is NOT subject to Subpart 213.2.

The NOx PTE emission is calculated to be 11.83 tpy of NOx, but the actual NOx emission (based on actual fuel consumption and OEM post-control emission factors) is anticipated to be below 5.0 tpy.

Process Material: FUEL CONSUMPTION  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 11.83 tons per year  
Reference Test Method: EPA RM 7  
Monitoring Frequency: MONTHLY  
Averaging Method: ANNUAL TOTAL ROLLED MONTHLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-17: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

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

**Item 1-17.1:**

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

Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: ENG09



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Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: OXC09

Emission Unit: 2-00000  
Process: CAT

Emission Point: 00002  
Emission Source: SCR09

**Item 1-17.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

This condition applies to the 2.5 MW Caterpillar / 3516C (equivalent to 2500 KW or to 3627 HP) fuel oil-fired (Process CAT) Tier 4 compression ignition engine defined as Emission Source ENG09, for black start and utility demand programs, with "built-in" catalyst-based emissions control (Emission Controls SCR09 and OXC09).

The owner or operator of a stationary compression ignition (CI) internal combustion engine must comply with the emission standards specified in 40 CFR 60 Subpart IIII and must do all of the following:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer. Monthly emissions calculation based on manufacturer's emission factors and operational parameters will be maintained; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the facility.

Operation and maintenance records showing completion of manufacturer's recommended maintenance activities shall be maintained onsite with all supporting documentation that verifies compliance with these requirements. A copy of the Operation & Maintenance manual for each engine shall be kept on-site and be readily available for review by NYSDEC and/or USEPA representatives upon request.

New York University has submitted the following Maintenance Interval Schedule for the Caterpillar 3516 C standby engine:

**CATERPILLAR 3516 C ENGINE STANDBY MAINTENANCE INTERVAL SCHEDULE:**

When Required:

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Air Compressor Filter – Inspect  
Air Inlet Filter – Inspect/Clean/Test  
Air Tank Moisture and Sediment – Drain  
Battery or Battery Cable-Disconnect  
Engine-Clean  
Engine Air Cleaner Service Indicator-Inspect  
Fuel System-Prime  
Fuel System Primary Filter/Water  
Separator-Drain  
Generator-Dry  
Generator Bearing-Lubricate  
Generator Set-Test  
Generator Set Alignment-Check  
Generator Winding-Test  
Maintenance Recommendations

Daily:

Coolant Level-Check  
Engine Oil Level-Check

Every Week:

Air Starting Motor Lubricator Oil Level-Check  
Battery Charger-Check  
Battery Electrolyte Level-Check  
Control Panel-Inspect/Test  
Electrical Connections-Check  
Fuel Tank Water and  
Sediment-Drain  
Generator-Inspect  
Generator Bearing Temperature-Test/Record  
Generator Lead-Check  
Generator Load-Check  
Jacket Water Heater-Check  
Power Factor-Check  
Space Heater-Test  
Standby Generator Set Maintenance Recommendations  
Stator Winding Temperature-Test  
Voltage and Frequency-Check  
Walk-Around Inspection  
Initial 250 Service Hours:  
Engine Valve Lash-Check  
Fuel Injector-Inspect/Adjust

Every 250 Service Hours:  
Engine Oil Sample-Obtain

Every 500 Service hours or 1 Year:  
Fan Drive Bearing-Lubricate

Every 6 Months:  
Coolant Sample (Level 1)-Obtain

Every 1000 Service Hours:

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Rotating Rectifier-Check

Every 2000 Service Hours:

Air Dryer Desiccant-Replace

Generator Set Vibration-Test/Record

Every Year:

Air Starting Motor Lubricator

Bowl-Clean

Alternator-Inspect

Belts-Inspect/Adjust/Replace

Coolant Sample (Level 2)-Obtain

Cooling System Supplemental Coolant

Additive-Test/Add

Crankshaft Vibration Damper-Inspect

Engine Air Cleaner (Dual)

Element-Inspect/Clean/Replace

Engine Air Cleaner (Single)

Element-Inspect/Clean/Replace

Engine Crankcase Breather-Clean

Engine Mounts-Inspect

Engine Oil and Filter-Change

Engine Protective Devices-Check

Engine Valve Lash-Check

Fuel Injector-Inspect/Adjust

Fuel System Primary Filter (Water Separator)

Element-Replace

Fuel System Secondary Filter-Replace

Generator Bearing-Inspect

Generator Set Vibration-Test/Record

Generator Winding Insulation-Test

Hoses and Clamps-Inspect/Replace

Radiator-Clean

Starting Motor-Inspect

Stator Lead-Check

Varistor-Check

Water Pump-Inspect

Every 3

Years:

Battery-Recycle

Battery-Replace

Coolant-Change

Coolant Extender-Add

Coolant Temperature Regulator-Replace

Manufacturer Name/Model Number: Caterpillar / 3516C

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**DESCRIPTION**

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

**Condition 1-18: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4211(g), NSPS Subpart III**

**Item 1-18.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09

Regulated Contaminant(s):  
CAS No: 0NY210-00-0    OXIDES OF NITROGEN

**Item 1-18.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.5 MW Caterpillar / 3516C (equivalent to 2500 KW or to 3627 HP) fuel oil-fired (Process CAT) Tier 4 compression ignition engine defined as Emission Source ENG09, for black start and utility demand programs, with "built-in" catalyst-based emissions control (Emission Controls SCR09 and OXC09).

The owner or operator of a stationary CI internal combustion engine greater than 500 HP must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. Owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

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In addition, the owner or operator of a stationary CI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer and in a manner consistent with good air pollution control practice for minimizing emissions. Owners and operators may only change those settings that are permitted by the manufacturer.

The manufacturer's Oxides of Nitrogen (NOx) anticipated emission factor for this engine is 0.59 g/bhp-hr or 0.802g/KW-hr.

For establishing the PTE calculations, an emission factor of 0.59 g/bhp-hr (equivalent to 4.63 lb/hr) for NOx is used in the emission calculations for the Caterpillar, which is NYU's anticipated actual emission factor.

Manufacturer Name/Model Number: Caterpillar / 3516C  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 0.59 grams per brake horsepower-hour  
Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-19: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

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

**Item 1-19.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09

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Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 1-19.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.5 MW Caterpillar / 3516C (equivalent to 2500 KW or to 3627 HP) fuel oil-fired (Process CAT) Tier 4 compression ignition engine defined as Emission Source ENG09, for black start and utility demand programs, with "built-in" catalyst-based emissions control (Emission Control OXC09).

The owner or operator of a stationary CI internal combustion engine greater than 500 HP must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. Owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

In addition, the owner or operator of a stationary CI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer and in a manner consistent with good air pollution control practice for minimizing emissions. Owners and operators may only change those settings that are permitted by the manufacturer.

The manufacturer's Carbon Monoxide (CO) limit for this engine is 0.03 g/bhp-hr.

Manufacturer Name/Model Number: Caterpillar / 3516C

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 0.03 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

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DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-20: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4211(g), NSPS Subpart III**

**Item 1-20.1:**

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

Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: ENG09
Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: OXC09
Emission Unit: 2-00000 Process: CAT	Emission Point: 00002 Emission Source: SCR09

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 1-20.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.5 MW Caterpillar / 3516C (equivalent to 2500 KW or to 3627 HP) fuel oil-fired (Process CAT) Tier 4 compression ignition engine defined as Emission Source ENG09, for black start and utility demand programs, with "built-in" catalyst-based emissions control (Emission Control OXC09).

The owner or operator of a stationary CI internal combustion engine greater than 500 HP must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. Owners and operators may only change those settings that are

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permitted by the manufacturer. The owner or operator must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

In addition, the owner or operator of a stationary CI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer and in a manner consistent with good air pollution control practice for minimizing emissions. Owners and operators may only change those settings that are permitted by the manufacturer.

The Particulates (PM) limit for this engine is 0.03 g/bhp-hr.

Manufacturer Name/Model Number: Caterpillar / 3516C  
Parameter Monitored: PARTICULATES  
Upper Permit Limit: 0.03 grams per brake horsepower-hour  
Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-21: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4211(g), NSPS Subpart III**

**Item 1-21.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09



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Regulated Contaminant(s):

CAS No: 0NY998-00-0    VOC

**Item 1-21.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.5 MW Caterpillar / 3516C (equivalent to 2500 KW or to 3627 HP) fuel oil-fired (Process CAT) Tier 4 compression ignition engine defined as Emission Source ENG09, for black start and utility demand programs, with "built-in" catalyst-based emissions control (Emission Control OXC09).

The owner or operator of a stationary CI internal combustion engine greater than 500 HP must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. Owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

In addition, the owner or operator of a stationary CI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer and in a manner consistent with good air pollution control practice for minimizing emissions. Owners and operators may only change those settings that are permitted by the manufacturer.

The manufacturer provides an emission factor for Volatile Organic Compounds (VOC) for this engine of 0.01 g/bhp-hr or 0.136 g/KW-hr.

The 0.01 g/bhp-hr emission factor is actually for "hydrocarbons", not strictly VOCs. At the time of testing, NYU will test for VOCs and for total hydrocarbons minus methane and ethane, and compare the results to

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interpret the discrepancy between hydrocarbon (HC) and VOC. To establish a PTE, the facility will use the manufacturer's emission factor of 0.01 g/bhp-hr for the Caterpillar / 3516C engine at a lower load (75%).

Manufacturer Name/Model Number: Caterpillar / 3516C

Parameter Monitored: VOC

Upper Permit Limit: 0.01 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**DESCRIPTION**

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2018.

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

**Condition 1-22: Compliance Certification  
Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4243(b)(2)(ii), NSPS Subpart**

**JJJJ**

**Item 1-22.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: ENG08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: OXC08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: SCR08
Regulated Contaminant(s):	
CAS No: 0NY210-00-0	OXIDES OF NITROGEN

**Item 1-22.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Maintenance and Planning:

This condition applies to the 2.6 MW (equivalent to 2649 KW or to 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine (Emission Source ENG08) natural gas fired spark-ignited (Process JEN) equipped with selective catalytic reduction (Emission Control SCR08) for NOx and

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catalytic oxidation (Emission Control OXC08) for CO and VOC.

The owner or operator of a stationary spark-ignited (SI) internal combustion engine greater than 500 HP must conduct an initial performance test and must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

In addition, the owner or operator of a stationary spark-ignited (SI) internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

The owner or operator of a stationary SI internal combustion engine must comply with the emission standards specified in 40 CFR 60 Subpart JJJJ and must do all of the following:

- (1) Operate and maintain the stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer. Monthly emissions calculation based on manufacturer's emission factors and operational parameters will be maintained; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the facility.

Operation and maintenance records showing completion of manufacturer's recommended maintenance activities shall be maintained on-site with all supporting documentation that verifies compliance with these requirements. A copy of the Operation & Maintenance manual for each engine shall be kept on-site and be readily available for review by NYSDEC and/or USEPA representatives upon request.

Manufacturer Name/Model Number: GE-Jenbacher / JSM-616  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2018.  
Subsequent reports are due every 12 calendar month(s).

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**Condition 1-23: Compliance Certification**  
Effective between the dates of 01/23/2018 and 09/28/2020

**Applicable Federal Requirement: 40CFR 60.4243(b)(2)(ii), NSPS Subpart**

**JJJJ**

**Item 1-23.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: ENG08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: OXC08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: SCR08
Regulated Contaminant(s):	
CAS No: 000630-08-0	CARBON MONOXIDE

**Item 1-23.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.6 MW (equivalent to 2649 KW or to 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine (Emission Source ENG08) natural gas fired spark-ignited (Process JEN) equipped with selective catalytic reduction (Emission Control SCR08) for NO<sub>x</sub> and catalytic oxidation (Emission Control OXC08) for CO and VOC.

The owner or operator of a stationary SI (spark ignited) internal combustion engine greater than 500 HP must conduct an initial performance test and must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

In addition, the owner or operator of a stationary SI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

The NSPS Carbon Monoxide (CO) limit for this engine is 2.0 g/bhp-hr or 270 ppmvd. The manufacturer's anticipated



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emission factor is 0.156 g/bhp-hr, and NYU has chosen an arbitrary value of 0.3 g/bhp-hr to establish the PTE. This will be confirmed by stack testing.

Manufacturer Name/Model Number: GE-Jenbacher / JSM-616  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 0.3 grams per brake horsepower-hour  
Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-24: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4243(b)(2)(ii), NSPS Subpart**

**JJJJ**

**Item 1-24.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: ENG08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: OXC08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: SCR08
Regulated Contaminant(s):	
CAS No: 0NY210-00-0	OXIDES OF NITROGEN

**Item 1-24.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.6 MW (equivalent to 2649 KW or 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine (Emission Source ENG08) natural gas fired spark-ignited (Process JEN) is equipped with selective catalytic reduction (Emission Control SCR08) for NOx and catalytic oxidation (Emission Control OXC08) for CO and OC.

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The owner or operator of a stationary SI (spark ignited) internal combustion engine greater than 500 HP must conduct an initial performance test and must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

In addition, the owner or operator of a stationary SI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

The NSPS Oxides of Nitrogen (NOx) limit for this engine is 1.0 g/bhp-hr or 82 ppmvd. NYU has chosen an arbitrary value of 0.3 g/bhp-hr to establish the PTE, though the anticipated actual value is 0.078 g/bhp-hr. This will be confirmed by stack testing.

Manufacturer Name/Model Number: GE-Jenbacher / JSM-616  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 0.3 grams per brake horsepower-hour  
Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-25: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4243(b)(2)(ii), NSPS Subpart**

**JJJJ**

**Item 1-25.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: ENG08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: OXC08
Emission Unit: 2-00000	Emission Point: 00002
Process: JEN	Emission Source: SCR08

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Regulated Contaminant(s):  
CAS No: 0NY998-00-0    VOC

**Item 1-25.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 2.6 MW (equivalent to 2649 KW or to 4.55 MMBtu/hr) GE-Jenbacher / JSM-616 lean burn engine (Emission Source ENG08) natural gas fired spark-ignited (Process JEN) equipped with selective catalytic reduction (Emission Control SCR08) for NO<sub>x</sub> and catalytic oxidation (Emission Control OXC08) for CO and VOC.

The owner or operator of a stationary SI (spark ignited) internal combustion engine greater than 500 HP must conduct an initial performance test and must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

In addition, the owner or operator of a stationary SI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

The NSPS Volatile Organic Compounds (VOC) limit for this engine is 0.7 g/bhp-hr or 60 ppmvd. NYU has chosen an arbitrary value of 0.3 g/bhp-hr to establish the PTE, though the anticipated actual value is 0.078 g/bhp-hr. This will be confirmed by a stack testing.

Manufacturer Name/Model Number: GE-Jenbacher / JSM-616

Parameter Monitored: VOC

Upper Permit Limit: 0.3 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

**Condition 55: Compliance Certification**

**New York State Department of Environmental Conservation**

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4305, NSPS Subpart KKKK**

**Item 55.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: TURB1
Emission Unit: 1-00000 Process: 004	Emission Point: 00001 Emission Source: TURB2
Emission Unit: 1-00000 Process: 005	Emission Point: 00001 Emission Source: TURB1
Emission Unit: 1-00000 Process: 005	Emission Point: 00001 Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 55.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The two combustion turbines (Emission Sources TURB1 & TURB2) are subject to 40 CFR 60.KKKK - Standards of Performance for Stationary Combustion Turbines for the operation of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MM Btu) per hour, which commenced construction, modification, or reconstruction after February 18, 2005. The two combustion turbines are identical, and each one is approximately 60.5 MM Btu/hr and they will burn either natural gas (Process 004) or # 2 fuel oil (Process 005). This replaces the requirements of 40 CFR 60.GG which have expired. NOx emissions under 40 CFR 60.KKKK are limited to less than or equal to 25 ppm (when firing natural gas), and are limited to 74 ppm (when firing oil) subject to initial and periodic performance testing to confirm compliance.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2016.

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



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**Condition 56: Compliance Certification**

Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement: 40CFR 60.4340, NSPS Subpart KKKK**

**Item 56.1:**

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

Emission Unit: 1-00000  
Process: 005

Emission Point: 00001  
Emission Source: TURB1

Emission Unit: 1-00000  
Process: 005

Emission Point: 00001  
Emission Source: TURB2

Regulated Contaminant(s):

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

**Item 56.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

NYU Central Plant must perform annual performance tests in accordance with 40 CFR 60.4400, NSPS Subpart KKKK to demonstrate continuous compliance for the two combustion turbines (Emission Sources TURB1 & TURB2). If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine, frequency of subsequent tests may be reduced to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, performance testing shall resume to annual.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

The two combustion turbines (Emission Sources TURB1 & TURB2) are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NOx emission limit is 74 ppm at 15 % O2 for > 50 MM Btu/hr new turbines firing fuels other than natural gas.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 74 parts per million by volume (dry,

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corrected to 15% O2)  
Reference Test Method: 40 CFR 60 Appendix A, Method 7  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 57: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4340, NSPS Subpart KKKK**

**Item 57.1:**

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

Emission Unit: 1-00000	Emission Point: 00001
Process: 004	Emission Source: TURB1
Emission Unit: 1-00000	Emission Point: 00001
Process: 004	Emission Source: TURB2
Regulated Contaminant(s):	
CAS No: 0NY210-00-0	OXIDES OF NITROGEN

**Item 57.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

NYU Central Plant must perform annual performance tests in accordance with 40 CFR 60.4400, NSPS Subpart KKKK to demonstrate continuous compliance for the two combustion turbines (Emission Sources TURB1 & TURB2). If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine, frequency of subsequent tests may be reduced to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, performance testing shall resume to annual.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs

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(minimum 20 minutes each) are required for each performance test.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NOx emission limit is 25 ppm at 15 % O2 for > 50 MM Btu/hr new turbines firing natural gas.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix A, Method 7

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2016.

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

**Condition 58: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4365(a), NSPS Subpart**

**KKKK**

**Item 58.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: TURB1

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 007446-09-5                      SULFUR DIOXIDE

**Item 58.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The sulfur content in the #2 fuel oil combusting in the two combustion turbines (Emission Sources TURB1 & TURB2) is limited to 0.05 % sulfur by weight. This is equivalent to 500 ppm by weight or less. Therefore; the potential sulfur dioxide emissions are less than 0.060 lbs per MM

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Btu heat input.

The SO<sub>2</sub> emission has to be less than 0.06 lbs/MM Btu to be exempt. If not, then the facility will monitor SO<sub>2</sub> emissions which will be calculated hourly based on fuel usage and sulfur content.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL  
Parameter Monitored: SULFUR CONTENT  
Upper Permit Limit: 500 parts per million by weight  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 59: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4365(a), NSPS Subpart**

**KKKK**

**Item 59.1:**

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

Emission Unit: 1-00000	Emission Point: 00001
Process: 004	Emission Source: TURB1

Emission Unit: 1-00000	Emission Point: 00001
Process: 004	Emission Source: TURB2

Regulated Contaminant(s):	
CAS No: 007446-09-5	SULFUR DIOXIDE

**Item 59.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The sulfur content in the natural gas combusting in the two combustion turbines (Emission Sources TURB1 & TURB2) is limited to 0.05 % sulfur by weight (20 grains per 100 scf). Therefore; the potential sulfur dioxide emissions are less than 0.06 lbs per MM Btu heat input( which is equivalent to 500 ppm).

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The SO<sub>2</sub> emission has to be less than 0.06 lbs/MM Btu to be exempt. If not, then the facility will monitor SO<sub>2</sub> emissions which will be calculated hourly based on fuel usage and sulfur content.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: NATURAL GAS  
Parameter Monitored: SULFUR CONTENT  
Upper Permit Limit: 20 grains per 100 scf  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2016.  
Subsequent reports are due every 12 calendar month(s).

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 60: Emission Point Definition By Emission Unit**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 60.1(From Mod 1):**

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

Emission Unit: 1-00000

Emission Point: 00001

Height (ft.): 222

Diameter (in.): 108

NYTMN (km.): 4509.2

NYTME (km.): 584.8

Building: 251

**Item 60.2(From Mod 1):**

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

Emission Unit: 2-00000

Emission Point: 00002

Height (ft.): 167

Diameter (in.): 36

NYTMN (km.): 4509.2

NYTME (km.): 584.8

Building: 40

**Condition 61: Process Definition By Emission Unit**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 61.1(From Mod 1):**

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



Emission Unit: 1-00000

Process: 006

Source Classification Code: 1-03-005-02

Process Description:

Process 006 is the firing of # 2 distillate fuel oil in the three mid-size boilers (Emission Sources 0BLRA, 0BLRB & 0BLRC) in Emission Unit 1-0000 after the conversion from # 6 residual fuel oil to # 2 distillate fuel oil (Process 006) beginning 7/1/2014. Process 002 (#6 residual fuel oil) will no longer be used at the facility (ended on 6/30/2014).

The boilers are dual fuel and will continue to burn natural gas (Process 001) as the predominant fuel and Process 006 (#2 ultra low sulfur distillate fuel oil) as back-up fuel.

Changes to the boilers include new oil guns, new fuel oil trains, new steam atomization trains and compressed air atomization trains. The existing burners will remain in place.

Additional efficiency and safety upgrades include an oil purifier centrifuge for the oil tanks, extended fire protection in the oil pump room and full burning capacity for optimal steam and air atomization.

Emissions from the three boilers exhaust through a single emission point, a nine foot diameter stack on the roof of 251 Mercer Street, identified as Emission Point 00001. The same emission point will be used to exhaust emissions from the two new turbines (Emission Sources TURB1 & TURB2) and their corresponding duct burners (Emission Controls DUCT1 & DUCT2; respectively).

Emission Source/Control: 0BLRA - Combustion

Design Capacity: 65 million Btu per hour

Emission Source/Control: 0BLRB - Combustion

Design Capacity: 65 million Btu per hour

Emission Source/Control: 0BLRC - Combustion

Design Capacity: 65 million Btu per hour

**Item 61.2(From Mod 1):**

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

Emission Unit: 2-00000

Process: CAT

Source Classification Code: 2-03-001-01

Process Description:

Process CAT is the burning of ultra-low-sulfur distillate fuel oil for firing the 2.5 MW Caterpillar D3516C Tier 4

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compression ignition reciprocating internal combustion engine (Emission Source ENG09) for black start and utility demand programs, with "built-in" catalyst-based emissions control (Emission Controls OXC09 and SCR09) in Emission Unit 2-00000. The emissions exhaust through a stack identified as Emission Point 00002. The hours of operation will be capped at 500 per year.

Emission Source/Control: ENG09 - Combustion  
Design Capacity: 2.5 megawatt

Emission Source/Control: OXC09 - Control  
Control Type: OXIDATION CATALYST

Emission Source/Control: SCR09 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

**Item 61.3(From Mod 1):**

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

Emission Unit: 2-00000  
Process: JEN Source Classification Code: 2-03-002-01  
Process Description:

Process JEN is the burning of utility-provided natural gas for firing the 2.6 MW GE-Jenbacher lean burn spark-ignited reciprocating internal combustion engine (Emission Source GEN08) with add-on selective catalytic reduction (Emission Control SCR08) for NO<sub>x</sub> and catalytic oxidation for CO and VOC (Emission Control OXC08) in Emission Unit 2-00000. The emissions exhaust through a stack identified as Emission Point 00002.

Emission Source/Control: ENG08 - Combustion  
Design Capacity: 2.6 megawatt

Emission Source/Control: OXC08 - Control  
Control Type: OXIDATION CATALYST

Emission Source/Control: SCR08 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

**Item 61.4(From Mod 0):**

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

Emission Unit: 1-00000  
Process: 001 Source Classification Code: 1-02-006-02  
Process Description:

Process 001 is the combustion of natural gas in three existing boilers (Emission Sources 0BLRA, 0BLRB & 0BLRC)

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in Emission Unit 1-0000. Boilers 0BLRA, 0BLRB and 0BLRC are 65 MM Btu/hr each. These three boilers combust natural gas (Process 001) and # 2 fuel oil (Process 006).

Emissions from the three boilers exhaust through a single emission point, a nine foot diameter stack on the roof of 251 Mercer Street, identified as Emission Point 00001. The same emission point exhausts emissions from the two turbines (Emission Sources TURB1 & TURB2) and their corresponding duct burners (Emission Controls DUCT1 & DUCT2; respectively).

Emission Source/Control: 0BLRA - Combustion

Emission Source/Control: 0BLRB - Combustion

Emission Source/Control: 0BLRC - Combustion

**Item 61.5(From Mod 0):**

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

Emission Unit: 1-00000

Process: 004

Source Classification Code: 2-01-002-01

Process Description:

Process 004 consists of the combustion of natural gas in the two 5.5 MW turbines (Emission Sources TURB1 & TURB2) with or without their corresponding two duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000. The duct burners combust only natural gas. When the two turbines are not operating due to emergency or maintenance, the duct burners do not operate and supplemental hot water is provided by the boilers. The duct burners operate only when the turbines are operating. The duct burners (Emission Controls DUCT1 & DUCT2) do not operate independent of the turbines (Emission Sources TURB1 & TURB2).

The two combustion turbines (Emission Sources TURB1 & TURB2) are identical, and each is approximately 60.5 MM Btu/hr.

Emission Source/Control: TURB1 - Combustion  
Design Capacity: 5.5 megawatt

Emission Source/Control: TURB2 - Combustion  
Design Capacity: 5.5 megawatt

Emission Source/Control: DUCT1 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: DUCT2 - Control





Control Type: LOW NOx BURNER

**Item 61.6(From Mod 0):**

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

Emission Unit: 1-00000

Process: 005

Source Classification Code: 2-01-001-01

Process Description:

Process 005 consists of the combustion of # 2 fuel oil (distillate oil) in the two 5.5 MW turbines (Emission Sources TURB1 & TURB2) with or without their corresponding two duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000. The duct burners combust only natural gas. When the two turbines are not operating due to emergency or maintenance, the duct burners do not operate and supplemental hot water is provided by the boilers.

The two combustion turbines (Emission Sources TURB1 & TURB2) are identical, and each is approximately 60.5 MM Btu/hr. The duct burners (Emission Controls DUCT1 & DUCT2) operate only when the turbines are operating; the duct burners do not operate independent of the turbines (Emission Sources TURB1 & TURB2).

Emissions from the two turbines/duct burners will be exhausted through a single emission point, identified as Emission Point 00001 (the same emission point as the three boilers).

Emission Source/Control: TURB1 - Combustion  
Design Capacity: 5.5 megawatt

Emission Source/Control: TURB2 - Combustion  
Design Capacity: 5.5 megawatt

Emission Source/Control: DUCT1 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: DUCT2 - Control  
Control Type: LOW NOx BURNER

**Condition 62: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 62.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000

Emission Point: 00001



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Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 62.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate emission limit from any stationary combustion installation, ducted through a common stack, which fire liquid fuels, and that have a heat capacity exceeding 250 MM Btu/hr is limited to 0.10 pounds per million Btus.

This condition applies to Emission Unit 1-00000, Emission Point 00001 and Process 005 for the two new turbines (Emission Sources TURB1 & TURB2); and Process 006 for the three boilers (Emission Sources 0BLRA, 0BLRB & 0BLRC).

The total heat input from all the liquid fuel burning stationary combustion installations in Emission Unit 1-00000 & Emission Point 00001, is as follows:

Turbine TURB1	60.5 MM Btu/hr
Turbine TURB2	60.5 MM Btu/hr
Boiler 0BLRA	65 MM Btu/hr
Boiler 0BLRB	65 MM Btu/hr
Boiler 0BLRC	65 MM Btu/hr

Total heat capacity from the above stationary combustion installation exceeds 250 MM Btu/hr.

Parameter Monitored: PARTICULATES  
Upper Permit Limit: 0.10 pounds per million Btus  
Reference Test Method: EPA RM 5  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 63: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.3 (a)**

**Item 63.1:**

The Compliance Certification activity will be performed for:

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Facility DEC ID: 2620500246



Emission Unit: 1-00000

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 63.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No person or operator of a combustion installation shall emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average utilizing a continuous opacity monitor (COM).

The existing continuous opacity monitoring system (COMS) unit will remain voluntarily on the stack of Emission Point 00001.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

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 10/30/2015.

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

**Condition 64: Compliance Certification**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-1.4 (b)**

**Item 64.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000

Emission Point: 00001

**Item 64.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

NYU will maintain a voluntary COMS on Emission Point 00001 since a continuous opacity monitoring system (COMS) is not required due to the exclusion of turbines. Either by voluntary COMS or visible emissions observations, NYU will include the following in their quarterly excess emission reports:

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- (1) Magnitude, date, and time of each exceedence;
- (2) For each period of excess emissions, specific identification of the cause and corrective action taken;
- (3) Date, time, and duration of each period of COMS downtime, and the corrective action for each period of downtime;
- (4) Total time the COMS is required to record data during the reporting period;
- (5) The total number of exceedences and the duration of exceedences expressed as a percentage of the total time in which the COMS are required to record data; and
- (6) Such other requirements as the Department may deem necessary in order to enforce Article 19 of the Environmental Conservation Law (ECL).

Monitoring Frequency: CONTINUOUS  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 10/30/2015.  
Subsequent reports are due every 3 calendar month(s).

**Condition 65: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-2.4 (e) (3)**

**Item 65.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 004                                      Emission Source: DUCT1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 65.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 1 (Emission Sources TURB1) firing natural gas (Process 004) with its corresponding duct burner (Emission Controls DUCT1) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for



approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1, 2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

(i) the available NO<sub>x</sub> control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

(ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two new duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

The proposed NO<sub>x</sub> RACT limit is 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) for the combined cycle combustion (Emission Sources TURB1) firing natural gas (Process 004) with its corresponding duct burner (Emission Control DUCT1) in Emission Unit 1-00000.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) when firing gas (Process 004), will be based on the combination of the combustion turbine and the duct burner when both fire, and the combustion turbine alone when not duct-firing. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NO<sub>x</sub> emissions, the facility must perform annual performance tests. NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the duct burner (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NO<sub>x</sub> stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine

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compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: 40 CFR Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**DESCRIPTION**

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 66: EPA Region 2 address.  
Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4, NSPS Subpart A**

**Item 66.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 66.2:**

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  
625 Broadway  
Albany, NY 12233-3258

**Condition 67: Recordkeeping requirements.  
Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 67.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 67.2:**

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 68: Facility files for subject sources.  
Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 68.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 68.2:**

The following files shall be maintained at the facility for all affected sources: all measurements, including continuous monitoring systems, monitoring device, and performance testing measurements; all continuous monitoring system evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part, recorded in permanent form suitable for inspection. The file shall be maintained for at least two years following the date of such measurements, reports, and records.

**Condition 69: Performance testing timeline.  
Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 69.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 69.2:**

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.

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**Condition 70: Performance Test Methods - Waiver EU Level**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 70.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 70.2:**

Performance testing shall be conducted in accordance with the methods and procedures prescribed in 40 CFR Part 60 unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternate method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

**Condition 71: Prior notice.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 71.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 71.2:**

The owner or operator shall provide the Administrator with prior notice of any performance test at least 30 days in advance of testing.

**Condition 72: Performance testing facilities.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 72.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 72.2:**

The following performance testing facilities shall be provided during all tests:



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- 1) sampling ports adequate for tests methods applicable to such facility;
- 2) a safe sampling platform;
- 3) a safe access to the sampling platform; and
- 4) utilities for sampling and testing equipment.

**Condition 73: Number of required tests.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 73.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 73.2:**

Each performance test shall consist of three separate runs, at the specified duration required in the applicable test method. Compliance with all applicable standards shall be determined by using the arithmetic means of the results of the three runs.

**Condition 74: Availability of information.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.9, NSPS Subpart A**

**Item 74.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT1

**Item 74.2:**

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

**Condition 75: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4325, NSPS Subpart KKKK**

**Item 75.1:**

The Compliance Certification activity will be performed for:

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Emission Unit: 1-00000  
Process: 004

Emission Point: 00001  
Emission Source: DUCT1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 75.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine  
NSPS - NOx emission limits when the turbine burns both  
natural gas and distillate oil (or some other combination  
of fuels):

This condition is an NSPS regulation for Stationary  
Combustion Turbines and it specifies the NOx emission  
limits specified in Table 1 to this subpart. If the  
turbine's total heat input is greater than or equal to 50  
percent natural gas, then the owner or operator must meet  
the corresponding limit for a natural gas-fired turbine  
when the turbine is burning that fuel. Similarly, when  
the turbine's total heat input is greater than 50 percent  
distillate oil and fuels other than natural gas, then the  
owner or operator must meet the corresponding limit for  
distillate oil and fuels other than natural gas for the  
duration of the time that the turbine burns that  
particular fuel.

Since NYU Central Plant will not be using water or steam  
injection to control NOx emissions from the combined  
combustion turbine 1 (Emission Source TURB1) with its  
associated duct burner (Emission Control DUCT1), the  
facility must perform annual performance tests in  
accordance with 40 CFR 60 KKKK 4400 to demonstrate  
continuous compliance for the two combustion turbines  
(Emission Sources TURB1 & TURB2). If the NOx emission  
result from the performance test is less than or equal to  
75 percent of the NOx emission limit for the turbine, then  
the facility may reduce the frequency of subsequent  
performance tests to once every 2 years (no more than 26  
calendar months following the previous performance test).  
If the results of any subsequent performance test exceed  
75 percent of the NOx emission limit for the turbine, then  
the facility must resume annual performance  
tests.

Oxides of Nitrogen emissions from the combined combustion  
turbine # 1 (Emission Source TURB1) with its associated  
duct burner (Emission Control DUCT1) in Emission Unit  
1-00000 burning natural gas (Process 004) will comply with

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the 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) limit for the combustion turbine alone. Compliance will be demonstrated with an annual stack testing rather than Continuous Emission Monitoring System (CEMS).

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner outlet (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the duct burner outlet (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NO<sub>x</sub> stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NO<sub>x</sub> emission limit is 25 ppm at 15 % O<sub>2</sub> for > 50 MM Btu/hr new turbines firing natural gas.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 25 ppm at 15 % O<sub>2</sub> when firing gas, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

Manufacturer Name/Model Number: Combined TURB1 & DUCT1

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: 40 CFR 60 Appendix A, Method 7

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

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Reports due 60 days after the reporting period.  
The initial report is due 8/29/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 76: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-2.4 (e) (3)**

**Item 76.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 004                                      Emission Source: DUCT2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 76.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 2 (Emission Sources TURB2) firing natural gas (Process 004) with its corresponding duct burner (Emission Controls DUCT2) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1, 2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

(i) the available NOx control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

(ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

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The proposed NOx RACT limit is 25 parts per million by volume (dry, corrected to 15% O2) for the combined cycle combustion turbine (Emission Sources TURB2) firing natural gas (Process 004) with its corresponding duct burner (Emission Control DUCT2) in Emission Unit 1-00000.

For combustion turbines with a duct burner, compliance with the NOx emission limit of 25 parts per million by volume (dry, corrected to 15% O2) when firing gas (Process 004), will be based on the combination of the combustion turbine and the duct burner when both fire, and the combustion turbine alone when not duct-firing. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NOx emissions, the facility must perform annual performance tests. NYU has chosen NOx stack testing rather than CEMS on the duct burner (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 77: EPA Region 2 address. Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4, NSPS Subpart A**

**Item 77.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT2

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**Item 77.2:**

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  
625 Broadway  
Albany, NY 12233-3258

**Condition 78: Recordkeeping requirements.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 78.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT2

**Item 78.2:**

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 79: Facility files for subject sources.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 79.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:

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DUCT2

**Item 79.2:**

The following files shall be maintained at the facility for all affected sources: all measurements, including continuous monitoring systems, monitoring device, and performance testing measurements; all continuous monitoring system evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part, recorded in permanent form suitable for inspection. The file shall be maintained for at least two years following the date of such measurements, reports, and records.

**Condition 80: Performance testing timeline.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 80.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:

DUCT2

**Item 80.2:**

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 81: Performance Test Methods - Waiver EU Level**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 81.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:

DUCT2

**Item 81.2:**

Performance testing shall be conducted in accordance with the methods and procedures prescribed in 40 CFR Part 60 unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternate method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrators satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

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**Condition 82: Prior notice.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 82.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT2

**Item 82.2:**

The owner or operator shall provide the Administrator with prior notice of any performance test at least 30 days in advance of testing.

**Condition 83: Performance testing facilities.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 83.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT2

**Item 83.2:**

The following performance testing facilities shall be provided during all tests:

- 1) sampling ports adequate for tests methods applicable to such facility;
- 2) a safe sampling platform;
- 3) a safe access to the sampling platform; and
- 4) utilities for sampling and testing equipment.

**Condition 84: Number of required tests.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 84.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT2

**Item 84.2:**





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Each performance test shall consist of three separate runs, at the specified duration required in the applicable test method. Compliance with all applicable standards shall be determined by using the arithmetic means of the results of the three runs.

**Condition 85: Availability of information.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.9, NSPS Subpart A**

**Item 85.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
DUCT2

**Item 85.2:**

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

**Condition 86: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4325, NSPS Subpart KKKK**

**Item 86.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source: DUCT2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 86.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine  
NSPS - NOx emission limits when the turbine burns both  
natural gas and distillate oil (or some other combination  
of fuels):

This condition is an NSPS regulation for Stationary  
Combustion Turbines and it specifies the NOx emission  
limits specified in Table 1 to this subpart. If the  
turbine's total heat input is greater than or equal to 50  
percent natural gas, then the owner or operator must meet  
the corresponding limit for a natural gas-fired turbine  
when the turbine is burning that fuel. Similarly, when



the turbine's total heat input is greater than 50 percent distillate oil and fuels other than natural gas, then the owner or operator must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that the turbine burns that particular fuel.

Since NYU Central Plant will not be using water or steam injection to control NOx emissions from the combined combustion turbine 2 (Emission Source TURB2) with its associated duct burner (Emission Control DUCT2), the facility must perform annual performance tests in accordance with 40 CFR 60 KKKK 4400 to demonstrate continuous compliance for the two combustion turbines (Emission Sources TURB1 & TURB2). If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine, then the facility may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, then the facility must resume annual performance tests.

Oxides of Nitrogen emissions from the combined combustion turbine # 2 (Emission Source TURB2) with its associated duct burner (Emission Control DUCT2) in Emission Unit 1-00000 burning natural gas (Process 004) will comply with the 25 parts per million by volume (dry, corrected to 15% O2) limit for the combustion turbine alone. Compliance will be demonstrated with an annual stack testing rather than Continuous Emission Monitoring System (CEMS).

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner outlet (DUCT2) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NOx stack testing rather than CEMS on the duct burner outlet (Emission Control DUCT2) associated with the combustion gas turbine in accordance with 40 CFR

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60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NOx emission limit is 25 ppm at 15 % O2 for > 50 MM Btu/hr new turbines firing natural gas.

For combustion turbines with a duct burner, compliance with the NOx emission limit of 25 ppm at 15 % O2 when firing gas, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

Manufacturer Name/Model Number: Combined TURB2 & DUCT2

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix A, Method 7

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2016.

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

**Condition 87: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-2.4 (e) (3)**

**Item 87.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000  
Process: 004

Emission Point: 00001  
Emission Source: TURB1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 87.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS



combined cycle combustion turbine # 1 (Emission Source TURB1) firing natural gas (Process 004) without its corresponding duct burner (Emission Control DUCT1) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1, 2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

(i) the available NO<sub>x</sub> control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

(ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

The proposed NO<sub>x</sub> RACT limit is 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) for the combined cycle combustion turbine (Emission Source TURB1) firing natural gas (Process 004) without its corresponding duct burner (Emission Control DUCT1) in Emission Unit 1-00000.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) when firing gas (Process 004), will be based on the combination of the combustion and the duct burner when both fire, and the combustion turbine alone when not duct-firing. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NO<sub>x</sub> emissions, the facility must perform annual performance tests. NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the duct burner

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(Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 88: EPA Region 2 address.  
Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4, NSPS Subpart A**

**Item 88.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 88.2:**

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  
625 Broadway  
Albany, NY 12233-3258

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**Condition 89: Recordkeeping requirements.**  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 89.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 89.2:**

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 90: Facility files for subject sources.**  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 90.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 90.2:**

The following files shall be maintained at the facility for all affected sources: all measurements, including continuous monitoring systems, monitoring device, and performance testing measurements; all continuous monitoring system evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part, recorded in permanent form suitable for inspection. The file shall be maintained for at least two years following the date of such measurements, reports, and records.

**Condition 91: Performance testing timeline.**  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 91.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 91.2:**

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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 92: Performance Test Methods - Waiver EU Level**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 92.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 92.2:**

Performance testing shall be conducted in accordance with the methods and procedures prescribed in 40 CFR Part 60 unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternate method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

**Condition 93: Prior notice.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 93.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 93.2:**

The owner or operator shall provide the Administrator with prior notice of any performance test at least 30 days in advance of testing.

**Condition 94: Performance testing facilities.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 94.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001



TURB1 Process: 004 Emission Source:

**Item 94.2:**

The following performance testing facilities shall be provided during all tests:

- 1) sampling ports adequate for tests methods applicable to such facility;
- 2) a safe sampling platform;
- 3) a safe access to the sampling platform; and
- 4) utilities for sampling and testing equipment.

**Condition 95: Number of required tests.**  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 95.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 95.2:**

Each performance test shall consist of three separate runs, at the specified duration required in the applicable test method. Compliance with all applicable standards shall be determined by using the arithmetic means of the results of the three runs.

**Condition 96: Availability of information.**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:40CFR 60.9, NSPS Subpart A**

**Item 96.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB1

**Item 96.2:**

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

**Condition 97: Compliance Certification**  
Effective between the dates of 09/29/2015 and 09/28/2020





**Applicable Federal Requirement: 40CFR 60.4325, NSPS Subpart KKKK**

**Item 97.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000

Emission Point: 00001

Process: 004

Emission Source: TURB1

Regulated Contaminant(s):

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

**Item 97.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine  
NSPS - NO<sub>x</sub> emission limits when the turbine burns both  
natural gas and distillate oil (or some other combination  
of fuels):

This condition is an NSPS regulation for Stationary  
Combustion Turbines and it specifies the NO<sub>x</sub> emission  
limits specified in Table 1 to this subpart. If the  
turbine's total heat input is greater than or equal to 50  
percent natural gas, then the owner or operator must meet  
the corresponding limit for a natural gas-fired turbine  
when the turbine is burning that fuel. Similarly, when  
the turbine's total heat input is greater than 50 percent  
distillate oil and fuels other than natural gas, then the  
owner or operator must meet the corresponding limit for  
distillate oil and fuels other than natural gas for the  
duration of the time that the turbine burns that  
particular fuel.

Since NYU Central Plant will not be using water or steam  
injection to control NO<sub>x</sub> emissions from the combustion  
turbine 1 (Emission Source TURB2) alone, the facility must  
perform annual performance tests in accordance with 40 CFR  
60 KKKK 4400 to demonstrate continuous compliance for the  
two combustion turbines (Emission Sources TURB1 & TURB2).  
If the NO<sub>x</sub> emission result from the performance test is  
less than or equal to 75 percent of the NO<sub>x</sub> emission limit  
for the turbine, then the facility may reduce the  
frequency of subsequent performance tests to once every 2  
years (no more than 26 calendar months following the  
previous performance test). If the results of any  
subsequent performance test exceed 75 percent of the NO<sub>x</sub>  
emission limit for the turbine, then the facility must  
resume annual performance tests.

Oxides of Nitrogen emissions from the 5.5 megawatt

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combustion turbine # 1 (Emission Source TURB1) in Emission Unit 1-00000 burning natural gas (Process 004) will comply with the 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) limit for the combustion turbine alone. Compliance will be demonstrated with an annual stack testing rather than Continuous Emission Monitoring System (CEMS).

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the combustion turbine outlet (Emission Source TURB 1) in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the combustion gas turbine outlet (Emission Source TURB1) in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NO<sub>x</sub> stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NO<sub>x</sub> emission limit is 25 ppm at 15 % O<sub>2</sub> for > 50 MM Btu/hr new turbines firing natural gas.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 25 ppm at 15 % O<sub>2</sub> when firing gas, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

Manufacturer Name/Model Number: TURB1

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: 40 CFR 60 Appendix A, Method 7

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

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Reports due 60 days after the reporting period.  
The initial report is due 8/29/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 98: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4340(a), NSPS Subpart**

**KKKK**

**Item 98.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 004                                      Emission Source: TURB1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 98.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

If the facility is not using water or steam injection to control NOx emissions, the facility must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance.

If the NOx emission result from the performance test is less than or equal to 75% of the NOx emission limit for the turbine, the facility may reduce the frequency of subsequent performance tests to once every two years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceeds 75% of the NOx emission limit for the turbine, the facility must resume annual performance tests.

Reference Test Method: 40 CFR 60 Appendix A, Method 7

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 99: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-2.4 (e) (3)**

**Item 99.1:**



The Compliance Certification activity will be performed for:

Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 99.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 2 (Emission Source TURB2) firing natural gas (Process 004) without its corresponding duct burner (Emission Control DUCT2) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1, 2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

(i) the available NO<sub>x</sub> control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

(ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

The proposed NO<sub>x</sub> RACT limit is 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) for the combined cycle combustion turbine (Emission Source TURB2) firing natural gas (Process 004) without its corresponding duct burner (Emission Control DUCT2) in Emission Unit 1-00000.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) when firing gas (Process 004), will be based on the combustion turbine alone when

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not duct-firing. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NOx emissions, the facility must perform annual performance tests. NYU has chosen NOx stack testing rather than CEMS on the duct burner (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 100:** EPA Region 2 address. Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement: 40CFR 60.4, NSPS Subpart A**

**Item 100.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 100.2:**

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

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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  
625 Broadway  
Albany, NY 12233-3258

**Condition 101: Recordkeeping requirements.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 101.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 101.2:**

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 102: Facility files for subject sources.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 102.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 102.2:**

The following files shall be maintained at the facility for all affected sources: all measurements, including continuous monitoring systems, monitoring device, and performance testing measurements; all continuous monitoring system evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part, recorded in permanent form suitable for inspection. The file shall be maintained for at least two years following the date of such measurements, reports, and records.

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**Condition 103: Performance testing timeline.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 103.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 103.2:**

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 104: Performance Test Methods - Waiver EU Level**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 104.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 104.2:**

Performance testing shall be conducted in accordance with the methods and procedures prescribed in 40 CFR Part 60 unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternate method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

**Condition 105: Prior notice.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 105.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 105.2:**

The owner or operator shall provide the Administrator with prior notice of any

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performance test at least 30 days in advance of testing.

**Condition 106: Performance testing facilities.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 106.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 106.2:**

The following performance testing facilities shall be provided during all tests:

- 1) sampling ports adequate for tests methods applicable to such facility;
- 2) a safe sampling platform;
- 3) a safe access to the sampling platform; and
- 4) utilities for sampling and testing equipment.

**Condition 107: Number of required tests.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 107.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:  
TURB2

**Item 107.2:**

Each performance test shall consist of three separate runs, at the specified duration required in the applicable test method. Compliance with all applicable standards shall be determined by using the arithmetic means of the results of the three runs.

**Condition 108: Availability of information.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.9, NSPS Subpart A**

**Item 108.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 004 Emission Source:



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TURB2

**Item 108.2:**

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

**Condition 109: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4325, NSPS Subpart KKKK**

**Item 109.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000	Emission Point: 00001
Process: 004	Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 109.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine  
NSPS - NOx emission limits when the turbine burns both  
natural gas and distillate oil (or some other combination  
of fuels):

This condition is an NSPS regulation for Stationary  
Combustion Turbines and it specifies the NOx emission  
limits specified in Table 1 to this subpart. If the  
turbine's total heat input is greater than or equal to 50  
percent natural gas, then the owner or operator must meet  
the corresponding limit for a natural gas-fired turbine  
when the turbine is burning that fuel. Similarly, when  
the turbine's total heat input is greater than 50 percent  
distillate oil and fuels other than natural gas, then the  
owner or operator must meet the corresponding limit for  
distillate oil and fuels other than natural gas for the  
duration of the time that the turbine burns that  
particular fuel.

Since NYU Central Plant will not be using water or steam  
injection to control NOx emissions from the combustion  
turbine 2 (Emission Source TURB2) alone, the facility must  
perform annual performance tests in accordance with 40 CFR  
60 KKKK 4400 to demonstrate continuous compliance for the  
two combustion turbines (Emission Sources TURB1 & TURB2).



If the NO<sub>x</sub> emission result from the performance test is less than or equal to 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility must resume annual performance tests.

Oxides of Nitrogen emissions from the 5.5 megawatt combustion turbine # 2 (Emission Source TURB2) in Emission Unit 1-00000 burning natural gas (Process 004) will comply with the 25 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) limit for the combustion turbine alone. Compliance will be demonstrated with an annual stack testing rather than Continuous Emission Monitoring System (CEMS).

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the combustion turbine outlet (Emission Source TURB 2) in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the combustion gas turbine outlet (Emission Source TURB2) in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NO<sub>x</sub> stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NO<sub>x</sub> emission limit is 25 ppm at 15 % O<sub>2</sub> for > 50 MM Btu/hr new turbines firing natural gas.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 25 ppm at 15 % O<sub>2</sub> when firing gas, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

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Manufacturer Name/Model Number: TURB2  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 25 parts per million by volume (dry,  
corrected to 15% O2)  
Reference Test Method: 40 CFR 60 Appendix A, Method 7  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 110: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4340(a), NSPS Subpart**

**KKKK**

**Item 110.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 004                                      Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 110.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

If the facility is not using water or steam injection to control NOx emissions, the facility must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance.

If the NOx emission result from the performance test is less than or equal to 75% of the NOx emission limit for the turbine, the facility may reduce the frequency of subsequent performance tests to once every two years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceeds 75% of the NOx emission limit for the turbine, the facility must resume annual performance tests.

Reference Test Method: 40 CFR 60 Appendix A, Method 7  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

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DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED  
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 111: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-1.3 (a)**

**Item 111.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005

**Item 111.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one-six-minute period per hour of not more than 27 percent opacity.

The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

The permittee will conduct observations of visible emissions from the emission unit, process, etc. to which this condition applies at the monitoring frequency stated below while the process is in operation. The permittee will investigate, in a timely manner, any instance where there is cause to believe that visible emissions have the potential to exceed the opacity standard.

The permittee shall investigate the cause, make any necessary corrections, and verify that the excess visible emissions problem has been corrected. If visible emissions with the potential to exceed the standard continue, the permittee will conduct a Method 9 assessment within the next operating day of the sources associated with the potential noncompliance to determine the degree of opacity and will notify the NYSDEC if the method 9 test indicates that the opacity standard is not met.

Records of visible emissions observations (or any follow-up method 9 tests), investigations and corrective actions will be kept on-site. Should the Department determine that permittee's record keeping format is

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inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Reference Test Method: Method 9  
Monitoring Frequency: DAILY  
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2016.  
Subsequent reports are due every 6 calendar month(s).

**Condition 112: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.45c(a), NSPS Subpart Dc**

**Item 112.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005

Regulated Contaminant(s):  
CAS No: 0NY075-00-0      PARTICULATES

**Item 112.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING  
Monitoring Description:  
initial performance test required under 40CFR60.8

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Reference Test Method: method 9  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 113: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-2.4 (e) (3)**

**Item 113.1:**

The Compliance Certification activity will be performed for:

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Emission Unit: 1-00000  
Process: 005

Emission Point: 00001  
Emission Source: DUCT1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 113.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 1 (Emission Source TURB1) firing # 2 distillate fuel oil (Process 005) with its corresponding duct burner (Emission Control DUCT1) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1, 2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

(i) the available NO<sub>x</sub> control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

(ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two new duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

The proposed NO<sub>x</sub> RACT limit is 65 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) for the combined cycle combustion turbine (Emission Source TURB1) firing # 2 distillate fuel oil (Process 005) with its corresponding duct burner (Emission Control DUCT1) in Emission Unit 1-00000.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 65 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) when # 2 distillate fuel oil (Process 005), will be based on the combination of the

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combustion turbine and the duct burner when both fire. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NOx emissions, the facility must perform annual performance tests. NYU has chosen NOx stack testing rather than CEMS on the duct burner (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 65 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 114: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4325, NSPS Subpart KKKK**

**Item 114.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000  
Process: 005

Emission Point: 00001  
Emission Source: DUCT1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 114.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine



NSPS - NO<sub>x</sub> emission limits when the turbine burns both natural gas and distillate oil (or some other combination of fuels):

This condition is an NSPS regulation for Stationary Combustion Turbines and it specifies the NO<sub>x</sub> emission limits specified in Table 1 to this subpart. If the turbine's total heat input is greater than or equal to 50 percent natural gas, then the owner or operator must meet the corresponding limit for a natural gas-fired turbine when the turbine is burning that fuel. Similarly, when the turbine's total heat input is greater than 50 percent distillate oil and fuels other than natural gas, then the owner or operator must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that the turbine burns that particular fuel.

Since NYU Central Plant will not be using water or steam injection to control NO<sub>x</sub> emissions from the combined combustion turbine 1 (Emission Source TURB1) with its associated duct burner (Emission Control DUCT1), the facility must perform annual performance tests in accordance with 40 CFR 60 KKKK 4400 to demonstrate continuous compliance for the two combustion turbines (Emission Sources TURB1 & TURB2). If the NO<sub>x</sub> emission result from the performance test is less than or equal to 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility must resume annual performance tests.

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner outlet (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the



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duct burner outlet (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NOx emission limit is 74 ppm at 15 % O2 for > 50 MM Btu/hr new turbines firing # 2 fuel oil.

For combustion turbines with a duct burner, compliance with the NOx emission limit of 74 ppm at 15 % O2 when firing # 2 fuel oil, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

Manufacturer Name/Model Number: Combined TURB1 & DUCT1  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 74 parts per million by volume (dry, corrected to 15% O2)  
Reference Test Method: 40 CFR 60 Appendix A, Method 7  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 115: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-2.4 (e) (3)**

**Item 115.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: DUCT2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 115.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING



Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 2 (Emission Source TURB2) firing # 2 distillate fuel oil (Process 005) with its corresponding duct burner (Emission Control DUCT2) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1, 2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

(i) the available NO<sub>x</sub> control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

(ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two new duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

The proposed NO<sub>x</sub> RACT limit is 65 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) for the combined cycle combustion turbine (Emission Source TURB2) firing # 2 distillate fuel oil (Process 005) with its corresponding duct burner (Emission Control DUCT2) in Emission Unit 1-00000.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 65 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) when # 2 distillate fuel oil (Process 005), will be based on the combination of the combustion turbine and the duct burner when both fire. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NO<sub>x</sub> emissions, the facility must



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perform annual performance tests. NYU has chosen NOx stack testing rather than CEMS on the duct burner (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 65 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 116: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4325, NSPS Subpart KKKK**

**Item 116.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000

Emission Point: 00001

Process: 005

Emission Source: DUCT2

Regulated Contaminant(s):

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

**Item 116.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine NSPS - NOx emission limits when the turbine burns both natural gas and distillate oil (or some other combination of fuels):

This condition is an NSPS regulation for Stationary Combustion Turbines and it specifies the NOx emission limits specified in Table 1 to this subpart. If the turbine's total heat input is greater than or equal to 50 percent natural gas, then the owner or operator must meet the corresponding limit for a natural gas-fired turbine when the turbine is burning that fuel. Similarly, when



the turbine's total heat input is greater than 50 percent distillate oil and fuels other than natural gas, then the owner or operator must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that the turbine burns that particular fuel.

Since NYU Central Plant will not be using water or steam injection to control NOx emissions from the combined combustion turbine 2 (Emission Source TURB2) with its associated duct burner (Emission Control DUCT2), the facility must perform annual performance tests in accordance with 40 CFR 60 KKKK 4400 to demonstrate continuous compliance for the two combustion turbines (Emission Sources TURB1 & TURB2). If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine, then the facility may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, then the facility must resume annual performance tests.

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner outlet (Emission Control DUCT2) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NOx stack testing rather than CEMS on the duct burner outlet (Emission Control DUCT2) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NOx emission limit is 74 ppm at 15 % O<sub>2</sub> for > 50 MM Btu/hr new turbines firing # 2 fuel oil.

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For combustion turbines with a duct burner, compliance with the NOx emission limit of 74 ppm at 15 % O2 when firing # 2 fuel oil, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

Manufacturer Name/Model Number: Combined TURB2 & DUCT2

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 74 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix A, Method 7

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2016.

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

**Condition 117: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-2.4 (e) (3)**

**Item 117.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000

Emission Point: 00001

Process: 005

Emission Source: TURB1

Regulated Contaminant(s):

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

**Item 117.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 1 (Emission Source TURB1) firing # 2 distillate fuel oil (Process 005) without its corresponding duct burner (Emission Control DUCT1) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1,



2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

- (i) the available NO<sub>x</sub> control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and
- (ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two new duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

The proposed NO<sub>x</sub> RACT limit is 65 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) for the combined cycle combustion turbine (Emission Source TURB1) firing # 2 distillate fuel oil (Process 005) without its corresponding duct burner (Emission Control DUCT1) in Emission Unit 1-00000.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 65 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) when firing # 2 distillate fuel oil (Process 005), will be based on the combustion turbine alone when not duct-firing. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NO<sub>x</sub> emissions, the facility must perform annual performance tests. NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the duct burner (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NO<sub>x</sub> stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

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Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 65 parts per million by volume (dry,  
corrected to 15% O<sub>2</sub>)

Reference Test Method: 40 CFR 60 Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 118: EPA Region 2 address.  
Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4, NSPS Subpart A**

**Item 118.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 118.2:**

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  
625 Broadway  
Albany, NY 12233-3258

**Condition 119: Date of Construction Notification - if a COM is used.  
Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 119.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001

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Process: 005

Emission Source:

TURB1

**Item 119.2:**

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, postmarked no later than 30 days after such date;
- 3) a notification of the actual date of initial start up, postmarked 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 40 CFR 60. The notice shall be postmarked 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, postmarked not less than 30 days prior to such date;
- 6) a notification of the anticipated date for conducting the opacity observations, postmarked not less than 30 days prior to such date; and
- 7) a notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during the performance test, postmarked not less than 30 days prior to the performance test.

**Condition 120: Recordkeeping requirements.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 120.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:

TURB1

**Item 120.2:**

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.



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**Condition 121:** Facility files for subject sources.  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 121.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 121.2:**

The following files shall be maintained at the facility for all affected sources: all measurements, including continuous monitoring systems, monitoring device, and performance testing measurements; all continuous monitoring system evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part, recorded in permanent form suitable for inspection. The file shall be maintained for at least two years following the date of such measurements, reports, and records.

**Condition 122:** Performance testing timeline.  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 122.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 122.2:**

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 123:** Performance Test Methods - Waiver EU Level  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 123.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 123.2:**

Performance testing shall be conducted in accordance with the methods and procedures

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prescribed in 40 CFR Part 60 unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternate method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

**Condition 124: Prior notice.**

**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 124.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 124.2:**

The owner or operator shall provide the Administrator with prior notice of any performance test at least 30 days in advance of testing.

**Condition 125: Performance testing facilities.**

**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 125.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 125.2:**

The following performance testing facilities shall be provided during all tests:

- 1) sampling ports adequate for tests methods applicable to such facility;
- 2) a safe sampling platform;
- 3) a safe access to the sampling platform; and
- 4) utilities for sampling and testing equipment.

**Condition 126: Number of required tests.**

**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 126.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 126.2:**

Each performance test shall consist of three separate runs, at the specified duration required in the applicable test method. Compliance with all applicable standards shall be determined by using the arithmetic means of the results of the three runs.

**Condition 127: Availability of information.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.9, NSPS Subpart A**

**Item 127.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB1

**Item 127.2:**

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

**Condition 128: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4325, NSPS Subpart KKKK**

**Item 128.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source: TURB1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 128.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine  
NSPS - NOx emission limits when the turbine burns both



natural gas and distillate oil (or some other combination of fuels):

This condition is an NSPS regulation for Stationary Combustion Turbines and it specifies the NO<sub>x</sub> emission limits specified in Table 1 to this subpart. If the turbine's total heat input is greater than or equal to 50 percent natural gas, then the owner or operator must meet the corresponding limit for a natural gas-fired turbine when the turbine is burning that fuel. Similarly, when the turbine's total heat input is greater than 50 percent distillate oil and fuels other than natural gas, then the owner or operator must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that the turbine burns that particular fuel.

Since NYU Central Plant will not be using water or steam injection to control NO<sub>x</sub> emissions from the combustion turbine 1 (Emission Source TURB1) alone, the facility must perform annual performance tests in accordance with 40 CFR 60 KKKK 4400 to demonstrate continuous compliance for the two combustion turbines (Emission Sources TURB1 & TURB2). If the NO<sub>x</sub> emission result from the performance test is less than or equal to 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility must resume annual performance tests.

Oxides of Nitrogen emissions from the 5.5 megawatt combustion turbine # 1 (Emission Source TURB1) in Emission Unit 1-00000 burning # 2 fuel oil (Process 005) will comply with the 74 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) limit for the combustion turbine alone. Compliance will be demonstrated with an annual stack testing rather than Continuous Emission Monitoring System (CEMS).

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the combustion turbine outlet (Emission Source TURB1) in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load

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cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NOx stack testing rather than CEMS on the combustion gas turbine outlet (Emission Source TURB1) in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NOx emission limit is 74 ppm at 15 % O2 for > 50 MM Btu/hr new turbines firing # 2 fuel oil.

For combustion turbines with a duct burner, compliance with the NOx emission limit of 74 ppm at 15 % O2 when firing # 2 fuel oil, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

Manufacturer Name/Model Number: TURB1  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 74 parts per million by volume (dry, corrected to 15% O2)  
Reference Test Method: 40 CFR 60 Appendix A, Method 7  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 60 days after the reporting period.  
The initial report is due 8/29/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 129: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4330, NSPS Subpart KKKK**

**Item 129.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: TURB1

Regulated Contaminant(s):  
CAS No: 007446-09-5                      SULFUR DIOXIDE

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**Item 129.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

40 CFR 60 KKKK 4330 - NSPS Stationary Combustion Turbine  
NSPS - SO<sub>2</sub> emission limits.

This condition is an NSPS regulation for Stationary  
Combustion Turbines and it specifies the sulfur dioxide  
emission limit.

(a) Since the turbine is located in a continental area,  
then the owner or operator must comply with either  
paragraph (a)(1) or (a)(2) of this section. NYU has  
agreed to comply with (a)(2) of this section.

(2) The owner or operator must not burn in the subject  
stationary combustion turbine any fuel which contains  
total potential sulfur emissions in excess of 0.060 lb  
SO<sub>2</sub>/MMBtu heat input. If the turbine simultaneously fires  
multiple fuels, then each fuel must meet this  
requirement.

This SO<sub>2</sub> compliance certification will initially be  
confirmed by stack testing and the test will be chosen by  
the stack testing firm, and likely will be one of EPA's  
Method 6 procedures.

NYU will maintain SO<sub>2</sub> compliance (following the initial  
stack test) by using compliant fuel oil monitored as  
lb/heat input, but more accurate as 500 ppm maximum sulfur  
content in the fuel oil, which translates as 0.05 % by  
weight maximum. Compliance with the sulfur dioxide  
emissions will be determined based on fuel firing rate and  
% sulfur analysis in the fuel oil which is 500 ppm maximum  
(0.05 % by weight).

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.060 pounds per million Btus

Reference Test Method: EPA Method 6

Monitoring Frequency: PER DELIVERY

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY  
TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2016.

Subsequent reports are due every 6 calendar month(s).

**Condition 130: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**



**Applicable Federal Requirement: 6 NYCRR 227-2.4 (e) (3)**

**Item 130.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 130.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 5.5 megawatt SOLAR/TAURUS combined cycle combustion turbine # 2 (Emission Source TURB2) firing # 2 distillate fuel oil (Process 005) without its corresponding duct burner (Emission Control DUCT2) and is applicable beginning July 1, 2014. The owner or operator shall submit a testing protocol to the Department for approval, a minimum of 30 days prior to the stack testing.

(3) For all combustion turbines that operate after July 1, 2014, the owner or operator of a combustion turbine with a maximum heat input rate of 10 million Btu per hour or greater must submit a proposal for RACT to be implemented that includes descriptions of:

(i) the available NO<sub>x</sub> control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

(ii) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

The two 5.5 MW turbines (Emission Sources TURB1 & TURB2) operate with or without their corresponding two new duct burners (Emission Controls DUCT1 & DUCT2; respectively) in Emission Unit 1-00000.

The proposed NO<sub>x</sub> RACT limit is 65 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) for the combined cycle combustion turbine (Emission Source TURB2) firing # 2 distillate fuel oil (Process 005) without its corresponding duct burner (Emission Control DUCT2) in Emission Unit 1-00000.

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For combustion turbines with a duct burner, compliance with the NOx emission limit of 65 parts per million by volume (dry, corrected to 15% O2) when firing # 2 distillate fuel oil (Process 005), will be based on the combustion turbine alone when not duct-firing. The duct burner will never operate without its concomitant combustion turbine.

Compliance with this emission limit must be determined with a one hour average unless the owner or operator chooses to use a CEMS under the provisions of section 227-2.6(b) of this Subpart.

Since NYU Central Plant will not be using water or steam injection to control NOx emissions, the facility must perform annual performance tests. NYU has chosen NOx stack testing rather than CEMS on the duct burner (Emission Control DUCT1) associated with the combustion gas turbine in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NOx stack testing as described above of the turbine's emissions. Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the duct burner (DUCT1) associated with the combustion gas turbine in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 65 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix A - Method 20

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 131: EPA Region 2 address. Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4, NSPS Subpart A**

**Item 131.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 131.2:**

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



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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  
625 Broadway  
Albany, NY 12233-3258

**Condition 132: Date of Construction Notification - if a COM is used.  
Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 132.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 132.2:**

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, postmarked no later than 30 days after such date;
- 3) a notification of the actual date of initial start up, postmarked 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 40 CFR 60. The notice shall be postmarked 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

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system performance commences, postmarked not less than 30 days prior to such date;

6) a notification of the anticipated date for conducting the opacity observations, postmarked not less than 30 days prior to such date; and

7) a notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during the performance test, postmarked not less than 30 days prior to the performance test.

**Condition 133: Recordkeeping requirements.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 133.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 133.2:**

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 134: Facility files for subject sources.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 134.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 134.2:**

The following files shall be maintained at the facility for all affected sources: all measurements, including continuous monitoring systems, monitoring device, and performance testing measurements; all continuous monitoring system evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part, recorded in permanent form suitable for inspection. The file shall be maintained for at least two years following the date of such measurements, reports, and records.

**Condition 135: Performance testing timeline.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**



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

**Item 135.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 135.2:**

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 136: Performance Test Methods - Waiver EU Level**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 136.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 136.2:**

Performance testing shall be conducted in accordance with the methods and procedures prescribed in 40 CFR Part 60 unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternate method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

**Condition 137: Prior notice.**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 137.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 137.2:**

The owner or operator shall provide the Administrator with prior notice of any performance test at least 30 days in advance of testing.

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**Condition 138: Performance testing facilities.**  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 138.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 138.2:**

The following performance testing facilities shall be provided during all tests:

- 1) sampling ports adequate for tests methods applicable to such facility;
- 2) a safe sampling platform;
- 3) a safe access to the sampling platform; and
- 4) utilities for sampling and testing equipment.

**Condition 139: Number of required tests.**  
Effective between the dates of 09/29/2015 and 09/28/2020

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

**Item 139.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2

**Item 139.2:**

Each performance test shall consist of three separate runs, at the specified duration required in the applicable test method. Compliance with all applicable standards shall be determined by using the arithmetic means of the results of the three runs.

**Condition 140: Availability of information.**  
Effective between the dates of 09/29/2015 and 09/28/2020

**Applicable Federal Requirement:40CFR 60.9, NSPS Subpart A**

**Item 140.1:**

This Condition applies to Emission Unit: 1-00000 Emission Point: 00001  
Process: 005 Emission Source:  
TURB2



**Item 140.2:**

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

**Condition 141: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4325, NSPS Subpart KKKK**

**Item 141.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 005                                      Emission Source: TURB2

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 141.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

40 CFR 60 KKKK 4325 - NSPS Stationary Combustion Turbine  
NSPS - NOx emission limits when the turbine burns both  
natural gas and distillate oil (or some other combination  
of fuels):

This condition is an NSPS regulation for Stationary  
Combustion Turbines and it specifies the NOx emission  
limits specified in Table 1 to this subpart. If the  
turbine's total heat input is greater than or equal to 50  
percent natural gas, then the owner or operator must meet  
the corresponding limit for a natural gas-fired turbine  
when the turbine is burning that fuel. Similarly, when  
the turbine's total heat input is greater than 50 percent  
distillate oil and fuels other than natural gas, then the  
owner or operator must meet the corresponding limit for  
distillate oil and fuels other than natural gas for the  
duration of the time that the turbine burns that  
particular fuel.

Since NYU Central Plant will not be using water or steam  
injection to control NOx emissions from the combustion  
turbine 2 (Emission Source TURB2) alone, the facility must  
perform annual performance tests in accordance with 40 CFR  
60 KKKK 4400 to demonstrate continuous compliance for the  
two combustion turbines (Emission Sources TURB1 & TURB2).  
If the NOx emission result from the performance test is



less than or equal to 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO<sub>x</sub> emission limit for the turbine, then the facility must resume annual performance tests.

Oxides of Nitrogen emissions from the 5.5 megawatt combustion turbine # 2 (Emission Source TURB2) in Emission Unit 1-00000 burning # 2 fuel oil (Process 005) will comply with the 74 parts per million by volume (dry, corrected to 15% O<sub>2</sub>) limit for the combustion turbine alone. Compliance will be demonstrated with an annual stack testing rather than Continuous Emission Monitoring System (CEMS).

Performance will be confirmed with stack testing and routine compliance reporting, instead of Continuous Emissions Monitoring System (CEMS) on the combustion turbine outlet (Emission Source TURB 2) in accordance with 40 CFR 60 KKKK 4400.

The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Performance testing at the highest achievable load point is acceptable if at least 75 percent of peak load cannot be achieved in practice. Three separate test runs (minimum 20 minutes each) are required for each performance test.

NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the combustion gas turbine outlet (Emission Source TURB2) in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NO<sub>x</sub> stack testing as described above of the turbine's emissions.

NYU has chosen NO<sub>x</sub> stack testing rather than CEMS on the combustion gas turbine outlet (Emission Source DUCT2) in accordance with 40 CFR 60 KKKK 4400. The facility will perform annual NO<sub>x</sub> stack testing as described above of the turbine's emissions.

The two combustion turbines (Emission Sources TURB1 & TURB2) engines are identical and each combustion turbine is rated at 60.5 MM Btu/hr. The NO<sub>x</sub> emission limit is 74 ppm at 15 % O<sub>2</sub> for > 50 MM Btu/hr new turbines firing # 2 fuel oil.

For combustion turbines with a duct burner, compliance with the NO<sub>x</sub> emission limit of 74 ppm at 15 % O<sub>2</sub> when

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firing # 2 fuel oil, compliance will be based on the combination of the combustion turbine and its duct burner when both fire, and on the combustion turbine alone when not duct firing. The duct burner will never operate without its concomitant combustion turbine.

Manufacturer Name/Model Number: TURB2

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 74 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix A, Method 7

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2016.

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

**Condition 142: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 40CFR 60.4330, NSPS Subpart KKKK**

**Item 142.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000

Emission Point: 00001

Process: 005

Emission Source: TURB2

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

**Item 142.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

40 CFR 60 KKKK 4330 - NSPS Stationary Combustion Turbine  
NSPS - SO2 emission limits.

This condition is an NSPS regulation for Stationary Combustion Turbines and it specifies the sulfur dioxide emission limit.

(a) Since the turbine is located in a continental area, then the owner or operator must comply with either paragraph (a)(1) or (a)(2) of this section. NYU has agreed to comply with (a)(2) of this section.

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(2) The owner or operator must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 0.060 lb SO<sub>2</sub>/MMBtu heat input. If the turbine simultaneously fires multiple fuels, then each fuel must meet this requirement.

This SO<sub>2</sub> compliance certification will initially be confirmed by stack testing and the test will be chosen by the stack testing firm, and likely will be one of EPA's Method 6 procedures.

NYU will maintain SO<sub>2</sub> compliance (following the initial stack test) by using compliant fuel oil monitored as lb/heat input, but more accurate as 500 ppm maximum sulfur content in the fuel oil, which translates as 0.05 % by weight maximum. Therefore, compliance with the sulfur dioxide emissions will be determined based on fuel firing rate and % sulfur analysis in the fuel oil which is 500 ppm maximum (0.05 % by weight).

Manufacturer Name/Model Number: TURB2  
Parameter Monitored: SULFUR DIOXIDE  
Upper Permit Limit: 0.060 pounds per million Btus  
Reference Test Method: EPA Method 6  
Monitoring Frequency: PER DELIVERY  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2016.  
Subsequent reports are due every 6 calendar month(s).

**Condition 143: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-1.3**

**Item 143.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 006

**Item 143.2:**

Compliance Certification 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.

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)

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Reports due 30 days after the reporting period.  
The initial report is due 1/30/2016.  
Subsequent reports are due every 6 calendar month(s).

**Condition 144: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement:6 NYCRR 227-1.3 (a)**

**Item 144.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-00000                      Emission Point: 00001  
Process: 006

**Item 144.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one-six-minute period per hour of not more than 27 percent opacity.

The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

The permittee will conduct observations of visible emissions from the emission unit, process, etc. to which this condition applies at the monitoring frequency stated below while the process is in operation. The permittee will investigate, in a timely manner, any instance where there is cause to believe that visible emissions have the potential to exceed the opacity standard.

The permittee shall investigate the cause, make any necessary corrections, and verify that the excess visible emissions problem has been corrected. If visible emissions with the potential to exceed the standard continue, the permittee will conduct a Method 9 assessment within the next operating day of the sources associated with the potential noncompliance to determine the degree of opacity and will notify the NYSDEC if the method 9 test indicates that the opacity standard is not met.

Records of visible emissions observations (or any follow-up method 9 tests), investigations and corrective actions will be kept on-site. Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition,

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it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Reference Test Method: Method 9  
Monitoring Frequency: DAILY  
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2016.  
Subsequent reports are due every 6 calendar month(s).

**Condition 145: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable Federal Requirement: 6 NYCRR 227-1.4 (b)**

**Item 145.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 2-00000

Emission Point: 00002

**Item 145.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a stationary combustion installation which utilizes a continuous opacity monitoring system (COMS) shall include the following in their quarterly excess emission reports:

- 1) Magnitude, date, and time of each exceedence;
- 2) For each period of excess emissions, specific identification of the cause and corrective action taken;
- 3) Date, time, and duration of each period of COMS downtime, and the corrective action for each period of downtime;
- 4) Total time the COMS is required to record data during the reporting period;
- 5) The total number of exceedences and the duration of exceedences expressed as a percentage of the total time in which the COMS are required to record data; and

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6) Such other requirements as the Department may deem necessary in order to enforce Article 19 of the Environmental Conservation Law (ECL).

Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 10/30/2015.  
Subsequent reports are due every 3 calendar month(s).

**Condition 1-26: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

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

**Item 1-26.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09

**Item 1-26.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

The owner or operator of a stationary CI internal combustion engine must comply with the emission standards specified in 40 CFR 60 Subpart IIII and must do all of the following:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the facility

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.

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The initial report is due 7/30/2018.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-27: Compliance Certification**  
**Effective between the dates of 01/23/2018 and 09/28/2020**

**Applicable Federal Requirement:40CFR 60.4211(g), NSPS Subpart III**

**Item 1-27.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09

**Item 1-27.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The owner or operator of a stationary CI internal combustion engine greater than 500 HP must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The owner or operator must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Manufacturer Name/Model Number: Caterpillar / 3516C

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 0.03 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: ANNUALLY

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2018.

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

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**Condition 1-28: Compliance Certification**  
Effective between the dates of 01/23/2018 and 09/28/2020

**Applicable Federal Requirement: 40CFR 60.4211(g), NSPS Subpart III**

**Item 1-28.1:**

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

Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: ENG09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: OXC09
Emission Unit: 2-00000	Emission Point: 00002
Process: CAT	Emission Source: SCR09

**Item 1-28.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The owner or operator of a stationary CI internal combustion engine greater than 500 HP must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The owner or operator must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Manufacturer Name/Model Number: Caterpillar / 3516C

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.59 grams per brake horsepower-hour

Reference Test Method: Paragraphs (a) through (f) of 40 CFR 60.4244

Monitoring Frequency: ANNUALLY

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 60 days after the reporting period.

The initial report is due 8/29/2018.

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

**Condition 1-29: Compliance Certification**

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**Effective between the dates of 01/23/2018 and 09/28/2020**

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

**Item 1-29.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000

Process: JEN

Emission Point: 00002

Emission Source: ENG08

Emission Unit: 2-00000

Process: JEN

Emission Point: 00002

Emission Source: OXC08

Emission Unit: 2-00000

Process: JEN

Emission Point: 00002

Emission Source: SCR08

**Item 1-29.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a stationary CI internal combustion engine must comply with the emission standards specified in 40 CFR 60 Subpart IIII and must do all of the following:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the facility

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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



**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: 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 applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.**

**Condition 149: Contaminant List**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable State Requirement:ECL 19-0301**

**Item 149.1:**

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  
Name: OXIDES OF NITROGEN

CAS No: 0NY998-00-0  
Name: VOC

**Condition 150: Malfunctions and start-up/shutdown activities**

**Effective between the dates of 09/29/2015 and 09/28/2020**

**Applicable State Requirement:6 NYCRR 201-1.4**



**Item 150.1:**

(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.

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 151: Compliance Demonstration**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 151.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-00000

Emission Point: 00001

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Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 151.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Any person who owns 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. When gas is the only fuel burned, monitoring and recording of opacity is not required.

The total heat input from the three boilers in Emission Unit 1-00000 & Emission Point 00001 is as follows:

Boiler 0BLRA	65 MM Btu/hr
Boiler 0BLRB	65 MM Btu/hr
Boiler 0BLRC	65 MM Btu/hr

Total heat capacity from the above stationary combustion installation is 195 MM Btu/hr, which does not exceed the 250 MM Btu/hr applicability.

The existing continuous opacity monitoring system (COMS) unit will remain on the stack of Emission Point 00001. The existing COMS will be utilized as voluntary COMS, and the COMS is not required by opacity regulation 6 NYCRR 227-1.3(a) since the total heat input for the combustion sources (excluding gas turbines) is < 250 MM Btu/hr threshold.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Reference Test Method: 40 CFR 60, Appendix B  
Monitoring Frequency: CONTINUOUS

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Averaging Method: 6 MINUTE AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 10/30/2015.  
Subsequent reports are due every 3 calendar month(s).