



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

**IDENTIFICATION INFORMATION**

Permit Type: Air Title V Facility  
Permit ID: 2-6205-00246/00005  
Effective Date: 09/29/2015 Expiration Date: 09/28/2020

Permit Issued To: NEW YORK UNIVERSITY  
70 WASHINGTON SQUARE SOUTH  
NEW YORK, NY 10012-1019

Contact: ZACKARY KORENSTEIN  
NEW YORK UNIVERSITY  
740 BROADWAY - FL 6  
NEW YORK, NY 10003  
(212) 992-8276

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

Description:

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

NYU's Central Plant is a central cogeneration power plant at a major urban university in New York City. There are no emission increases or changes to any capped emission limitations from the existing permit. There are no criteria or regulated pollutant emission increases.

The NYU Central Power Plant produces hot water, steam and electricity using three identical boilers identified as Emission Sources 0BLRA, 0BLRB and 0BLRC in Emission Unit 1-00000; each boiler is rated at 65 MM BTU/hr. The 114 MM Btu/hr boiler (Emission Source 0BLRD) was eliminated from the facility on 1/1/2009.

Seven reciprocating engines identified as ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 and ENG07 comprise Emission Unit 2-00000.

Each of the seven engines is rated at 850 kilowatts (1,000 hp mechanical), and due to the engine generators nearing the end of their useful life cycles, they were replaced with two new state-of-the-art turbines (Emission Sources TURB1 & TURB2) with duct burners (DUCT1 & DUCT2; respectively) for electricity generation, heat exchange and heating of water. After the construction of the two turbines, all seven engine generators became eligible to participate in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program. The engines operate no more than 2,000 hours per seven engines per year upon repowering. The two turbines are rated at 5.5 megawatt each, and the two duct burners are rated at 70 MM BTU/hr each. The facility's new electrical output is approximately 11 MW from the two turbines (2 @ 5.5 MW = 11 MW), or 11 MW x 8,760 hours = 96,360 MWe-hrs. New plant operations of the two combustion turbines began in December,



2010.

The existing COMS on Emission Point 00002 will voluntarily remain for the seven engines in Emission Unit 2-00000.

The existing continuous opacity monitoring system (COMS) unit will also voluntarily remain on the stack of Emission Point 00001, since the total heat input for the combustion sources (excluding gas turbines is <250 MM Btu/hr threshold) and COMS is not required by opacity regulation 6 NYCRR 227-1.3(a).

NYU proposed the existing NOx limits attained during the March 20 - 22, 2002 stack testing and current operations as the reasonable and achievable control technology (RACT) for its seven diesel engines. NYU Central Plant has submitted and was granted a NOx RACT variance for the seven diesel engine generators to continue operating and to comply with the 9.0 grams per brake horsepower-hour, and limit their operations to no more than 2,000 hours/7 engines/year. Reducing total hours of operation of all seven engine generators to 2,000 hours per year was to reduce the NOx emissions by about 306 tons per year in addition to significant reductions in annual emissions of criteria or regulated pollutants. After a few years of operations, actual reduction is over 410 tpy (based on an average rolling months).

This plan for a reduced rate of NOx emissions for the engines according to 6 NYCRR 227-2.4(f), presents a technical and economic evaluation of engine and fuel technologies. Therefore, NYU requested and was granted an economic variance from the newly implemented NOx emission limits, maintaining the current actual NOx emissions (9.0 grams per brake horsepower-hour as RACT instead of the current 2.3 grams per brake horsepower-hour).

#### Combustion Turbine Trains:

The facility's electrical output is approximately 11 MW from two combustion turbines (@ 5.5 MW each = 11 MW, or 11MW x 8,760 hours = 96,360 MWe-hrs). The two combustion turbines (Emission Sources TURB1 & TURB2) operate on natural gas (Process 004) and # 2 distillate fuel oil (Process 005). Maximum possible emissions for the turbines are based on combusting # 2 fuel oil for 8,760 hours per year. Potential to emit (PTE) for the combined two turbines is based on the heat content equivalent of combusting 9 months of natural gas and 3 months of # 2 fuel oil, not precluding any mixture of gas and oil or hours that does not exceed emissions caps or applicable regulations. The combined turbines have a NOx PTE of 56.93 tpy. The two combustion turbines are identical and each is approximately 60.5 MM Btu/hr.

The two duct burners combust only natural gas (Process 004) and their maximum possible emissions are equivalent to the PTE based on 8,760 hours per year. The duct burners are 70 MM Btu/hr each and 20 MM Btu/hr of that heat input is provided by the two combustion turbines; thus duct burner fuel is not required for this fraction of heat input. The duct burners never operate by themselves without their concomitant combustion turbine. The maximum possible NOx emissions for the combined HRSG/duct burners operating [only] on natural gas is 47.30 tpy. The duct burners do not have a specific regulated 'cap', but the two combined combustion turbine/HRSG-duct burner pairs have a capped NOx PTE of 104.23 tpy.

#### Boilers:

NYU dual-fuel boilers normally operate using natural gas (Process 001) with historical back-up



# 6 residual fuel oil (Process 002). Potential to emit (PTE) for the boilers is based on the heat content equivalent of 9 months of natural gas and 3 months of # 6 fuel oil, with a self-imposed (federally enforceable) cap of emissions equivalent to 2 boilers, 40.4 tons of NOx per annual maximum rolled monthly. The cap is based strictly on emissions and not any specific individual use of gas or fuel oil, or hours of operation. Thus, emission contribution from distillate fuel oil will be significantly less than that from residual fuel oil. 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 and fuel oil) and is not prorated for any single fuel.

The three boilers are being upgraded from firing # 6 residual fuel oil (Process 002) to firing # 2 ultra-low-sulfur distillate fuel oil (Process 006). This work was completed in 2015. All boilers will continue to burn natural gas as the primary fuel (Process 001) and maintain their current ratings.

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

The facility already uses oil with sulfur content not exceeding the 0.0015 % (15 ppm) limit for its turbines and is in [default] facility compliance with 6 NYCRR 225-1.2 (f), which will be incorporated into the permit renewal. The boilers will fire the same distillate fuel oil, under new Process 006.

#### Diesel Engine Generators:

Each of the seven engines is rated at 850 kilowatts (1,000 hp mechanical). The seven diesel engine generators operate under a NOx RACT Compliance and Operating Plan pursuant to 6 NYCRR 227. The Plan became effective upon the repowering of the facility and the last revised permit in January 2010. The plan concluded that no NOx control technologies were economic and technically feasible for the engines in view of the major repowering energy-saving, equipment replacement project at the time.

Since repowering, it has been determined that diesel engine stack testing cannot be properly and safely performed due to electrical infrastructure connectivity and busbar issues. The engines can only be operated in the emergency event of a city-wide blackout where Consolidated Edison is unable to provide resources to NYU and the facility's power plant cogeneration operations are shutdown. Thus, the engines have not been used to provide electricity, and NYU has restricted their use to limited maintenance. It is anticipated that these capital intense engine adjustments to correct this situation may be carried out during the next term of the Title V permit.

#### Continuous Opacity Monitoring Systems (COMS):

The turbines, duct burners and boilers emit through a shared stack (Emission Point 00001), which has an existing COMS unit to voluntarily monitor opacity, since the total heat input for the combustion sources (excluding gas turbines per regulation) is < 250 MM Btu/hr threshold and COMS is not required by opacity regulation 6 NYCRR 227-1.3 (a) under this condition.

Similarly, for the same criterion, the existing COMS on Emission Point 00002 for monitoring the diesel process (Process 003) opacity from the seven engines in Emission Unit 2-0000 also remains voluntary at the facility.



All issues that would ordinarily be applicable such as maintenance, reporting and recordkeeping for the engines and boilers COMS are also voluntarily performed.

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

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

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_



**Notification of Other State Permittee Obligations**

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

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

**Item B: Permittee's Contractors to Comply with Permit**

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

**Item C: Permittee Responsible for Obtaining Other Required Permits**

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

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

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



**LIST OF CONDITIONS**

**DEC GENERAL CONDITIONS**

**General Provisions**

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

**Facility Level**

- Submission of application for permit modification or renewal -

REGION 2 HEADQUARTERS



**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**

**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:**

Permits are transferrable with the approval of the department unless specifically prohibited by



the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

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

**Item 4.1:**

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

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

**\*\*\*\* Facility Level \*\*\*\***

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

**Item 5.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 2 Headquarters  
Division of Environmental Permits  
1 Hunters Point Plaza, 4740 21st Street  
Long Island City, NY 11101-5407  
(718) 482-4997

**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 SQUARE SOUTH  
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

Permit Effective Date: 09/29/2015

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
- 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
- 22 6 NYCRR Subpart 201-6: Emission Unit Definition
- 23 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 24 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 25 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- \*26 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*27 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*28 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*29 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*30 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*31 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 32 6 NYCRR 211.1: Air pollution prohibited
- 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
- 38 6 NYCRR 227-1.3: Compliance Certification
- 39 6 NYCRR 227-1.3: 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
- 46 6 NYCRR 227-2.4 (f) (3): Compliance Certification
- 47 6 NYCRR 227-2.4 (f) (3): Compliance Certification
- 48 6 NYCRR 227-2.4 (g): Compliance Certification
- 49 6 NYCRR 227-2.5 (a): Compliance Certification
- 50 6 NYCRR 227-2.5 (c): Compliance Certification
- 51 6 NYCRR 227-2.5 (c): Compliance Certification
- 52 6 NYCRR 227.2 (b) (1): Compliance Certification
- 53 6 NYCRR 227.2 (b) (1): Compliance Certification
- 54 6 NYCRR 227.2 (b) (1): 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=1-0000,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=1-0000,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=1-0000,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=1-0000,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=1-0000,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=1-0000,EP=00001,Proc=005**

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

**EU=1-0000,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=1-0000,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=1-0000,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

**EU=2-00000,EP=00002,Proc=003**

- 146 6 NYCRR 227-1.3: Compliance Certification
- 147 6 NYCRR 227-1.3: Compliance Certification
- 148 6 NYCRR 227-1.3 (a): 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: Emergency Defense - 6 NYCRR 201-1.5**

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

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;

(3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item B: Public Access to Recordkeeping for 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 C: 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 D: 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 E: 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 F: 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 G: 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 H: 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 I: 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 J: 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 K: 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. If additional applicable requirements under the Act become applicable where this permit's remaining term is



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 this 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 Part 201-6.7 and Part 621.

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 L: 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 M: 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 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:

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 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





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 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

**New York State Department of Environmental Conservation**

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



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:**

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 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:







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 OBLRA, OBLRB & OBLRC) 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 ( $2 @ 5.5 \text{ MW} = 11 \text{ MW} = 11 \text{ MW} \times 8,760 \text{ hours} = 96,360 \text{ MWe-hrs}$ ). 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 new 5.5 MW gas turbines (Emission Sources TURB1 & TURB2), and their two corresponding new 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 small boilers (Emission Sources OBLRA, OBLRB & OBLRC) @ 65 MMBtu/hr each total 195 MMBtu/hr ( $< 250 \text{ MMBtu/hr}$ ), 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  $< 250 \text{ MM Btu/hr}$  threshold and COMS is not required by opacity regulation 6 NYCRR 227-1.3 (a).



Building(s): 251

**Item 22.2:**

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 sub-basement of 40 West 4th Street, consists of seven identical Caterpillar D399 diesel engine electricity generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) with waste heat boilers. Each diesel engine generator is 1,000 mechanical horsepower (850 KW). These seven diesel engine generators operate on diesel oil - distillate oil (Process 003), and their emissions exhaust through one common stack, identified as Emission Point 00002.

All seven identical diesel engine generators are permitted to participate in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program beginning 6/30/2010, and operate no more than 2,000 hours/7 engines/year.

The existing COMS at Emission Point 00002 for the seven engines in Emission Unit 2-00000 will remain at the facility. This COMS is voluntary since the emission unit does not meet the 250 MMBtu/hr heat input threshold of the regulation governing COMS. NYU will voluntarily use COMS at Emission Point 00002, and all issues that would ordinarily be applicable such as maintenance, reporting and recordkeeping will be voluntarily performed.

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 24: Non Applicable requirements  
Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 24.1:**

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.

6 NYCRR 227-1.4

Emission Unit: 100000 Emission Point: 00001

Reason: 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 small 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.

This COMS is voluntary since the emission unit does not meet the 250 MMBtu/hr heat input threshold of the regulation governing COMS. NYU will voluntarily use COMS at Emission Point 00001, and all issues that would ordinarily be applicable such as maintenance, reporting and recordkeeping will be voluntarily performed.

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

6 NYCRR 227-1.4 (a)

Emission Unit: 200000 Emission Point: 00002

Reason: Regulation 6 NYCRR 227-1.4(a) for continuously



monitoring and recording opacity is not applicable to the seven identical Caterpillar D399 diesel engine generators (Emission Sources GEN01, GEN02, GEN03, GEN04, GEN05, GEN06 & GEN07) in Emission Unit 2-00000, Emission Point 00002, and Process 003 (# 2 fuel oil). Each engine generator has a heat input of 850 KW.

The total combined heat input from all the seven engine generators is:

$[7 \text{ engine generators} \times (850 \text{ KW/engine generator}) \times (3,413 \text{ Btu/hr} / 1 \text{ KW})] \times (1 \text{ MM Btu/hr} / 1,000,000 \text{ Btu/hr}) = 20.307 \text{ MM Btu/hr}$

which is < 250 MM Btu/hr heat capacity applicability for 6 NYCRR 227-1.4(a) from any stationary combustion installation using any liquid fuel.

Therefore, installation and operation with the opacity manufacturer's instruction, and proper maintenance of continuously monitoring and recording opacity at all times, that the stationary combustion installation firing liquid fuel is in service, satisfying the criteria in Appendix B of Title 40, Part 60 of the Code of Federal Regulations, is not applicable to these seven identical engine generators.

**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 the following

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

CAS No: 0NY210-00-0

PTE: 317,000 pounds per year

Name: OXIDES OF NITROGEN

**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:

New York State Department of Environmental Conservation

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



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.

**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 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)

**New York State Department of Environmental Conservation**

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



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



Process: 004	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 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 NO<sub>x</sub> 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 NO<sub>x</sub> 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 NO<sub>x</sub> 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 NO<sub>x</sub> 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 NO<sub>x</sub> 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 NO<sub>x</sub>

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

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

**Item 28.1:**

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 28.2:**

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

**Item 28.3:**

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.





York Independent System Operator (NYISO) or any other demand response program, and are capped at an overall 2,000 hours of operation for the combined seven engines.

The hourly NOx emission cap from 6 NYCRR 231-2 for the seven reciprocating diesel engine generators is 9.0 grams per brake horsepower-hour. The limit of 13.9 TPY NOx from the engines is calculated from 2000 hours operations at medium load.

Manufacturer Name/Model Number: Caterpillar D399 Engines ENG01 thru ENG07

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 13.9 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.



**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



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

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

**Item 30.1:**

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 30.2:**

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

**Item 30.3:**

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 30.4:**

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.

**New York State Department of Environmental Conservation**

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



**Item 30.5:**

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 30.6:**

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

Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG01
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG02
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG03
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG04
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG05
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG06
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG07
Regulated Contaminant(s): CAS No: 0NY210-00-0	OXIDES OF NITROGEN

**Item 30.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The seven identical reciprocating Caterpillar D399 diesel engine generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) with waste heat boilers, may participate in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program, and are capped at an overall 2,000 hours of operation for the combined seven engines.

The hourly NO<sub>x</sub> emission cap from 6 NYCRR 231-2 for the seven reciprocating diesel engine generators is 9.0 grams

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per brake horsepower-hour. The limit of 13.9 TPY NO<sub>x</sub> from the engines is calculated from 2000 hours operations at medium load.

The facility's NO<sub>x</sub> emissions will not exceed 158.5 tpy.

Work Practice Type: HOURS PER YEAR OPERATION  
Manufacturer Name/Model Number: Caterpillar D399 Engines ENG01 thru ENG07  
Upper Permit Limit: 2000 hours  
Monitoring Frequency: MONTHLY  
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 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.

**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.





**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 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

**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 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:**

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

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

**Item 38.1:**

The Compliance Certification activity will be performed for the facility:

New York State Department of Environmental Conservation

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



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: 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?

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)  
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 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 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.**

**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 Process: 006	Emission Point: 00001 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 NOx per million Btus under the NOx 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 NOx 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 NOx emission limit compliance to verify the NOx emission limit compliance.

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

2014 NOx RACT rule Plan - Fuel Switching Compliance Option:

A facility that recently has been firing # 6 fuel oil/gas





Regulated Contaminant(s):

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

**Item 46.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To ensure that the unit runs at optimum conditions and stays in compliance with the NO<sub>x</sub> RACT emission limit, 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.

The seven Caterpillar D399 stationary internal combustion engines (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) in Emission Unit 2-00000, are 850 KW (1,000 hp mechanical) each. These seven engines fire # 2 fuel oil (Process 003) only, and are lean burn internal combustion engines with compression ignition source.

Engine Maintenance Compliance:

NYU will continue to maintain its normal engine-maintenance program which includes the following routine items:

1. Every 1,000 hours: Oil change and filters sampled. Fuel oil filters and air filters by pressure drop readings.
2. Every 2,000 hours: Valve lash adjustments and crankcase filter change
3. Every 12,000 hours: Engine top end overhaul.
4. Every 24,000 hours: Engine top and bottom overhaul.

NYU maintains detailed operating records of pressures, temperatures, greasing, oiling, etc. The seven engines are maintained around the clock by a team of licensed New York City engineers.

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External vendor engine maintenance and repair include items such as:

- a. Major overhaul of engines
- b. Top end overhaul of engines
- c. Replace crankcase breather systems
- d. Repair aftercooler
- e. Replace oil cooler
- f. Recondition governor and fuel injection pump (new barrels and plungers).

Manufacturer Name/Model Number: Caterpillar D399 (850 KW or 1,000 hp) for ENG01 thru ENG07

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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

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

**Item 47.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG01
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG02
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG03
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG04
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG05
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG06
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG07

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



**Item 47.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The seven identical Caterpillar D399 stationary diesel internal combustion reciprocating engines (Emission Sources ENG01, ENG01, ENG03, ENG04, ENG05, ENG06 & ENG07) in Emission Unit 2-00000, are 850 KW (1,000 hp mechanical) early 1980s vintage each, and provide electricity with waste heat recovery boilers. These seven engine-generators fire diesel oil (# 2 fuel oil) are lean burn internal combustion engines with compression ignition source. Each engine is rated at 1,000 horsepower and is early 1980s vintage) for primary power production.

Effective April 1, 2005, any owner or operator of a stationary internal combustion engine of 200 horsepower or larger in the severe non-attainment area, which provides primary power or is used for peak shaving generation, must comply with the following emission limit for lean burn engines firing fuels other than natural gas: 2.3 grams per brake horsepower-hour. Stack testing will be required in order to demonstrate compliance with the NO<sub>x</sub> RACT emission limit regulatory standard for a lean burn internal combustion engine with compression ignition source is 2.3 grams per brake horsepower-hour beginning April 1, 2005 in the severe ozone non-attainment area. Compliance with this NO<sub>x</sub> emission limit must be determined with a 1-hour average in accordance with section 227-2.6(a)(7) of this Subpart unless the owner or operator chooses to utilize a CEMS under the provisions of section 227-2.6(a)(2) of this Subpart. If a CEMS is utilized, the requirements of section 227-2.6(b) of this Subpart apply, including the use of a 24-hour averaging period.

A variance from full compliance with NO<sub>x</sub> emission limits effective April 1, 2005 (2.3 grams/BHP-hr) is understood to be part of this Title V renewal and is relevant to Compliance Certification for 6 NYCRR 227-2.4(f)(2)(ii) and applies to the seven engine-generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) in Emission Unit 2-00000. The variance for the NO<sub>x</sub> emission limit of 9.0 grams per brake horsepower-hour for all of the seven generators at the facility remains.

Stack testing will be required in order to demonstrate compliance with the 9.0 grams per brake horsepower-hour NO<sub>x</sub> 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. On June 30, 2004 NYU submitted Engine NOx RACT Compliance Plan pursuant to 6 NYCRR 227 to NYSDEC Region II Office to meet compliance, maintaining the then current 9.0 gm/bhp-hr NOx emissions as RACT. The plan contained a proposed variance to meeting the emission limit. The plan presented economic and technical criteria supporting the non-feasibility of adopting any new operating conditions to the current seven diesel engines, in view of the major repowering energy-saving, equipment replacement project that was about to occur. The seven diesel engine generators are nearing the end of their useful life cycles and were replaced with state-of-the-art dual-fuel turbines (Emission Sources TURB1 & TURB2) and their associated duct burners (DUCT1 & DUCT2; respectively).

The seven identical reciprocating Caterpillar D399 diesel engine generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) with waste heat boilers, may participate in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program, and are operated no more than 2,000 hours/7 engines/year.

Manufacturer Name/Model Number: Caterpillar D399 (850 KW or 1,000 hp) for ENG01 thru ENG07

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 9.0 grams per brake horsepower-hour

Reference Test Method: 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: 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 48: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 48.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

New York State Department of Environmental Conservation

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Facility DEC ID: 2620500246



Emission Unit: 2-00000  
Process: 003

Emission Point: 00002  
Emission Source: ENG01

Emission Unit: 2-00000  
Process: 003

Emission Point: 00002  
Emission Source: ENG02

Emission Unit: 2-00000  
Process: 003

Emission Point: 00002  
Emission Source: ENG03

Emission Unit: 2-00000  
Process: 003

Emission Point: 00002  
Emission Source: ENG04

Emission Unit: 2-00000  
Process: 003

Emission Point: 00002  
Emission Source: ENG05

Emission Unit: 2-00000  
Process: 003

Emission Point: 00002  
Emission Source: ENG06

Emission Unit: 2-00000  
Process: 003

Emission Point: 00002  
Emission Source: ENG07

Regulated Contaminant(s):

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

**Item 48.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

All seven identical 850 kilowatts each Caterpillar D399 diesel engine generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07 in Emission Unit 2-000000 with waste heat boilers at the plant, may participate in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program, and will operate no more than 2,000 hours/7 engines/year.

This Title V Operating permit includes continuing the already approved engine RACT Plan technical and economic reasons and provides for a NOx emission limit of 9.0 grams per brake horsepower-hour for all of the seven reciprocating engines identified as ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 and ENG07 in Emission Unit 2-00000.

The seven engines will be operated in accordance with the NOx RACT Compliance Plan (6 NYCRR 227) submitted in June 30, 2004.

Previous stack test summary results shows the average



stack test results for the seven engines were:

Low Load - 350 KW - 7.765 grams/BHP-hr

Mid Load - 525 KW - 7.383 grams/BHP-hr

High Load - 700 KW - 7.909 grams/BHP-hr

The results of all tests conducted on all engines demonstrate that the emissions from all the engines were in compliance with the applicable standard of 9.0 grams per brake horsepower of NOx.

The limit of 13.9 TPY NOx emissions from the seven engines is calculated from 2,000 hours operations at medium load.

Manufacturer Name/Model Number: Caterpillar D399 (850 KW or 1,000 hp mechanical) - ENG01 thru ENG07

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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 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 NOx emissions equal to or less than the NOx 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 NOx 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 NOx per million Btus, which is less than half that for presumptive RACT for residual fuel oil which is 0.20 pounds of NOx per million Btus.

2014 NOx 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 NOx 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

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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).

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

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

**Item 51.1:**

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

Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG01
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG02
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG03
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG04
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG05
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG06
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG07

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

**Item 51.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

For those sources for which the owner or operator demonstrates that the applicable presumptive RACT emission limit of 2.3 grams per brake horsepower-hour 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 source specific emission limit. Economic or technical feasibility must include, but is not limited, the evaluation of fuel switching, selective catalytic reduction or system averaging as compliance options. This alternative RACT emission limit must be approved by the



Department and by the Administrator as a revision to the State Implementation Plan.

On June 30, 2004 NYU submitted an Engine NOx RACT Compliance Plan pursuant to 6 NYCRR 227 to the NYSDEC Region II Office to meet compliance for a reduced rate of NOx emissions from the newly implemented 2.3 gm/bhp-hr, maintaining the current actual 9.0 gm/bhp-hr NOx emissions as RACT. The plan contained a proposed variance to meet the emission limit. The plan presented economic and technical criteria supporting the non-feasibility of adopting any new operating conditions to the current seven diesel engines, in view of a major repowering energy-saving, equipment replacement project. The seven diesel engine generators are nearing the end of their useful life cycles and were replaced with state-of-the-art dual-fuel turbines (Emission Sources TURB1 & TURB2) and their corresponding duct burners (DUCT1 & DUCT2; respectively) and may participate in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program (which was scheduled for 6/30/2010) and will run no more than 2,000 hours/7 engines/year. There were no emission increases and therefore no exceedances of NSR or PSD thresholds, and thus no applicability. The two dual-fueled turbines and their duct burners replaced the seven engines to provide electricity to the facility. The facility now requests an extension of the current engine operations under the existing RACT Plan and the current actual NOx emissions as RACT even after the repowering project has been completed. Significant reductions in annual emissions have been confirmed with the new equipment.

A significant permanent environmental benefit has resulted from the repowering project.

With the issuance of this permit renewal, the NOx RACT Variance of 9.0 grams per brake horsepower-hour for each of the seven reciprocating engines, identified as ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 and ENG07 in Emission Unit 2-00000 has been extended by the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Manufacturer Name/Model Number: Caterpillar D399 (850 KW or 1,000 hp mechanical) - ENG01 thru ENG07

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 9.0 grams per brake horsepower-hour

Monitoring Frequency: Hourly when in use

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION



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

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

**Item 53.1:**

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

Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG01
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG02
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG03
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG04
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG05
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG06
Emission Unit: 2-00000 Process: 003	Emission Point: 00002 Emission Source: ENG07

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

**Item 53.2:**

Compliance Certification shall include the following monitoring:

**New York State Department of Environmental Conservation**

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



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: 003 (# 2 diesel fuel oil), and the seven identical reciprocating Caterpillar D399 diesel engine generators (Emission Sources: ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) with waste heat boilers.

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  
Process: 005

Emission Point: 00001  
Emission Source: DUCT1



Emission Unit: 1-00000  
Process: 005

Emission Point: 00001  
Emission Source: DUCT2

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: 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.

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

**New York State Department of Environmental Conservation**

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



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 55: Compliance Certification**  
**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



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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, 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.

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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) 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

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**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 Btu heat input.

The SO2 emission has to be less than 0.06 lbs/MM Btu to be exempt. If not, then the facility will monitor SO2 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

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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).

The SO2 emission has to be less than 0.06 lbs/MM Btu to be exempt. If not, then the facility will monitor SO2 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:**

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:**

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:**

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) 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 61.2:**

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

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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 61.3:**

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

**Item 61.4:**

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 the 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 61.5:**

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

Emission Unit: 2-00000



Process: 003 Source Classification Code: 2-01-001-02

Process Description:

Process 003 is the firing of diesel oil (# 2 fuel oil) in the seven identical Caterpillar D399 diesel engine generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) associated with waste heat boilers at the plant in Emission Unit 2-00000. Each diesel engine generator is 850 KW (1,000 hp mechanical). The emissions from these seven diesel engine generators exhaust through one common stack, identified as Emission Point 00002.

The seven identical Caterpillar D399 diesel engine generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) with waste heat boilers have been participating in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program, and will operate no more than 2,000 hours/7 engines/year.

Emission Source/Control: ENG01 - Combustion  
Design Capacity: 850 kilowatts

Emission Source/Control: ENG02 - Combustion  
Design Capacity: 850 kilowatts

Emission Source/Control: ENG03 - Combustion  
Design Capacity: 850 kilowatts

Emission Source/Control: ENG04 - Combustion  
Design Capacity: 850 kilowatts

Emission Source/Control: ENG05 - Combustion  
Design Capacity: 850 kilowatts

Emission Source/Control: ENG06 - Combustion  
Design Capacity: 850 kilowatts

Emission Source/Control: ENG07 - Combustion  
Design Capacity: 850 kilowatts

**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

Regulated Contaminant(s):

New York State Department of Environmental Conservation

Permit ID: 2-6205-00246/00005

Facility DEC ID: 2620500246



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:

Emission Unit: 1-00000

Emission Point: 00001





- (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 compliance reporting, instead of Continuous Emissions

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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**

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

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**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:



- 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:

Emission Unit: 1-00000 Emission Point: 00001

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Process: 004

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  
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)

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 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% 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:  
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 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.

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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:**

Each performance test shall consist of three separate runs, at the specified duration

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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 NO<sub>x</sub> 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 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 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% 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 (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 NO<sub>x</sub> 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 NO<sub>x</sub> stack

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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                      Emission Point: 00001  
Process: 004                                      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 (Emission Control DUCT1) associated with the combustion

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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



**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:**

Within 60 days after achieving the maximum production rate, but not later than 180 days

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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 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.

**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  
Process: 004 Emission Source:

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TURB1

**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 - 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 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 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 5.5 megawatt  
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)

Reports due 60 days after the reporting period.

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Facility DEC ID: 2620500246



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  
Process: 004

Emission Point: 00001  
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 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.

The proposed NOx 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 NOx 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 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

Copies of all correspondence to the administrator pursuant to this part shall also be

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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.

**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



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:



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



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:



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 - 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.

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 NOx 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



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 % 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 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



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.



**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**



**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  
Process: 005

Emission Point: 00001  
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.



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:



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



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.



**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.



(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)



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,



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

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

**Item 146.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 2-00000                      Emission Point: 00002  
Process: 003

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

**Item 146.2:**

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 % 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 two new turbines (Emission Sources TURB1 & TURB2) have been operating since 6/30/2010, at which time, the seven identical reciprocating Caterpillar D399 diesel engine generators (Emission Sources ENG01, ENG02, ENG03, ENG04, ENG05, ENG06 & ENG07) with waste heat boilers, participated in the Special Case Resources (SCR) of the New York Independent System Operator (NYISO) or any other demand response program, and will operate no more than 2,000 hours/7 engines/year.

The existing COMS at Emission Point 00002 for the seven engines in Emission Unit 2-00000 will remain at the facility. This COMS is voluntary since it does not meet the 250 MMBtu/hr heat input threshold of the regulation governing the COMS. NYU will voluntarily use COMS at Emission Point 00002, and all issues that would ordinarily

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be applicable such as maintenance, reporting and recordkeeping will continue to be voluntarily performed.

Manufacturer Name/Model Number: COMS  
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 147: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 147.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 2-00000                      Emission Point: 00002  
Process: 003

**Item 147.2:**

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 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.

Monitoring Frequency: DAILY  
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 148: Compliance Certification**  
**Effective between the dates of 09/29/2015 and 09/28/2020**

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

**Item 148.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 2-00000                      Emission Point: 00002  
Process: 003

**Item 148.2:**  
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, 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).



**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: 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: 007446-09-5  
Name: SULFUR DIOXIDE



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

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

**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

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)

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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  
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).

