



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 2-6003-00038/00008
Mod 0 Effective Date: 06/10/2013 Expiration Date: 06/09/2018
Mod 1 Effective Date: 05/01/2014 Expiration Date: 06/09/2018
Mod 2 Effective Date: 06/07/2016 Expiration Date: 06/09/2018

Permit Issued To: RIVERBAY CORP
2049 BARTOW AVE
BRONX, NY 10475-4613

Contact: BRIAN REARDON
RIVERBAY CORPORATION CO-OP CITY POWER PLANT
98 CO-OP CITY BLVD
BRONX, NY 10475-4613
(718) 320-3300

Facility: RIVERBAY CORP-CO-OP CITY
2049 BARTOW AVE
BRONX, NY 10475

Contact: BRIAN REARDON
RIVERBAY CORPORATION CO-OP CITY POWER PLANT
98 CO-OP CITY BLVD
BRONX, NY 10475-4613
(718) 320-3576

Description:

Permit Description
RIVERBAY CORP-CO-OP CITY
DEC ID # 2-6003-00038/00008 (Ren 2, Mod 2)

Riverbay Corp Co-Op City is submitting a modification application based on the conversion of all boilers from using #6-oil to using ULSD #2 fuel oil with 15 ppm or 0.0015 maximum sulfur as the secondary fuel and the installation of new high pressure 414 MM Btu/hr Victory Energy boiler (Emission Source HPB02) to replace the old low pressure 371 MM Btu/hr Riley Stoker Corp boiler identified as Emission Source 00002 in Emission Unit U-00002. The original effective date of the existing permit is 06/10/2013 and is due to expire on 6/9/2018.



The modification includes the following:

- I. Deleting Conditions # 28, 32, 46, 78, 79 & 94 from the Ren #2 Mod #1 permit.
- II. Adding new replacement conditions # 2-1, 2-4, 2-3, 2-2 and 2-5 ; respectively to the Ren #2 Mod #2 permit.
- III. Adding Conditions # 2-6 to 2-16.

The modification project description modifies the defined emission units (EUs), emission sources (ESs), expires Processes 001, 003 and 004 and adds new Processes 030 and 040. The modification project description is as follow:

1. Emission Source 00001 in Emission Unit U-00001 is a 371 MM Btu/hr low pressure Riley Stoker Corp boiler with a 371 million Btu heat input rating that began operation in July 1968. This boiler is capable of firing either natural gas (Process 002) or ULSD # 2 fuel oil with 15 ppm or 0.0015 maximum sulfur. The emission exhaust through a stack defined as Emission Point 00001. The installation of a new low NOx burner (LNB) with flue gas recirculation (FGR) and conversion from #6-oil (Process 001) to ULSD #2 fuel oil with 15 ppm or 0.0015 maximum sulfur (Process 017) for NOx RACT compliance was completed in 2014.
2. Emission Source HPB02 in Emission Unit U-00002 is a 414 MM Btu/hr high pressure Victory Energy boiler with a 414 million Btu heat input rating that is scheduled to begin operations in October, 2016. The emissions will exhaust through a stack defined as Emission Point 00002. This boiler is capable of firing either ULSD #2 fuel oil with 15 ppm or 0.0015 maximum sulfur (Process 030) or natural gas (Process 040). The new high pressure Victory Energy boiler replaces the former low pressure Riley Stoker Corp boiler rated at 371 million Btu heat input per hour (Emission Source 00002 in Emission Unit U-00002) as part of the facility's NOx RACT plan.
3. Permit condition # 28 for Process 001 in Emission Unit U-00001 and Process 003 in Emission Unit U-00002 must be changed to account for the facility no longer burning #6-oil. The fuel limit listed in Condition # 28 changes from 1.3 million gallons of #6-oil per year for Emission Units 00001 and 00002 combined to 6.11 million gallons of ULSD #2 fuel oil with 15 ppm or 0.0015 maximum sulfur for Emission Units U-00001 and U-00002 combined (Processes 017 & 030). Condition # 28 has been replaced by Condition # 2-1 for the 6.11 MM gallons per year limit of the ULSD fuel oil.



4. Permit condition # 32 for Process 002 in Emission Unit U-00001 and Process 004 in Emission Unit U-00002, the fuel limit is changed from 1.04×10^9 SCF/year for Emission Units U-00001 and U-00002 combined to 2.912×10^9 SCF/year for Emission Units U-00001 and U-00002 combined (Processes 002 & 040). Condition # 32 has been replaced by Condition # 2-4 for the 2,912 MM standard cubic feet per year limit of natural gas.

5. Permit condition # 78 for Process 005 in Emission Unit U-00003, which stipulates an annual fuel consumption limit for #2 distillate fuel oil at 0.8 million gallons until PM-10 emission testing is conducted, is no longer needed since such testing has been completed and submitted to NYSDEC. This permit condition #78 can be utilized for a new condition of an annual #2-oil consumption limit for Emission Units U-00001, U-00002 and U-00003 combined associated with this modification. The annual limit of ULSD #2 fuel oil with 15 ppm or 0.0015 maximum sulfur for Emission Units U-00001, U-00002 and U-00003 combined (Processes 017, 030 & 005) is 13.72 million gallons. Condition # 78 has been replaced by Condition # 2-3 for the 13.72 MM gallons per year limit of ULSD fuel oil.

6. Permit condition # 79 currently limits the annual fuel consumption of distillate #2-oil for Process 005 in Emission Unit U-00003 to 2.5 million gallons based upon stack testing of the PM10 emission rate equaling 0.02 lbs per million Btu heat input. The regulated contaminant for this permit condition is NOx. Stack testing was conducted August 20, 2014 and a test report dated October 15, 2014 was submitted to NYSDEC by Environmental Laboratories Inc. The test results of the report states the test results as 0.0091 lbs PM10 per million Btu heat input. Modification of permit condition # 79 encompasses:

- a. Changing the “regulated contaminant” from “Oxides of Nitrogen” (CAS No. 0NY210-00-0) to “Particulate (PM-10) (CAS No. NY075-00-5);
- b. Prorating the stack test results (0.0091 lbs PM-10 per MM Btus) to the permit condition (0.02 lbs PM-10 per MM Btus) for an increase in the annual fuel consumption limit from 2.5 to 5.49 million gallons. Condition # 79 has been replaced by Condition # 2-2 for the 5.49 MM gallons per year limit of ULSD fuel oil.

7. Permit condition #94 for Process 006 in Emission Unit U-00003 currently limits the annual natural gas fuel consumption to 1,800 million



cubic feet. With the new high pressure Victor Energy boiler (Emission Source HPB03 in modified Emission Unit U-00002), the facility will primarily operate the most economical boiler depending upon seasonal demand and maintenance requirements. All three boilers will be firing the same fuel – natural gas as the primary with ULSD as the secondary fuel—and are equipped with LNB and FGR for NO_x emission control. Consequently, the permit modification of condition # 94 revises the condition to apply an annual natural gas fuel consumption limit for the three combined boilers in Emission Units U-00001, modified Emission Unit 00002, and Emission Unit U-00003. The proposed limit is 4,748 million cubic feet for Processes 002, 040 & 006 combined. Condition # 94 has been replaced by Condition # 2-5 for the 4,748 MM standard cubic feet per year limit of natural gas.

8. The modified permit will contain operating restriction on each emission unit and combined emission units. The restrictions are summarized below:

PC	EU	Processes	Contaminant	Limit	Units
27	4, 6	8, 10, 13, 15	Particulates	7,000	hours/year
28	1, 2	17, 30	NO _x	6.11x10 ⁶	gal #2-oil/yr
29	4, 6	7, 8, 12, 13	Particulates	4,320	hours/year
30	4, 6,	7, 8, 9, 10, 11, 12, 13, 14, 15,16	Particulates	14,000	hours/year
31	4, 6	8, 13	Particulates	2,160	hours/year
32	1, 2	2, 40	NO _x	2912x10 ⁶	cu ft gas/yr
33	4, 6	11, 16	NO _x	320x10 ⁶	cu ft gas/yr
78	1, 2, 3	17, 30, 5	NO _x	13.72x10 ⁶	gal #2-oil/yr
79	3	5	PM-10	5.49x10 ⁶	gal #2-oil/yr
94	1, 2, 3	2, 40, 6	NO _x	4748x10 ⁶	cu ft gas/yr

9. Due to change of regulations by NYSDEC and EPA, the Clean Air Interstate Rule (CAIR) conditions for 6 NYCRR 243 has been removed from the Ren 2, Mod 2 permit. The CAIR conditions required facilities to obtain/poses at least as many allocations of carbon dioxide (CO₂), sulfur dioxide (SO₂) and oxides of nitrogen as they emit to the atmosphere during a specified period of time. An allocation is a unit of pollution which is limited by a budget established by the regulations.

10. Also, deleting the following CAIR Conditions:
 - Condition # 1-10 for 6 NYCRR 243-1.6 (a)



- Condition # 1-11 for 6 NYCRR 243-1.6 (b)
- Condition # 1-12 for 6 NYCRR 243-1.6 (c)
- Condition # 1-13 for 6 NYCRR 243-1.6 (d)
- Condition # 1-14 for 6 NYCRR 243-1.6 (e)
- Condition # 1-15 for 6 NYCRR 243-2.1
- Condition # 1-16 for 6 NYCRR 243-2.4
- Conditions # 1-17 and 1-18 for 6 NYCRR 243-8.1
- Condition # 1-19 for 6 NYCRR 243-8.3
- Condition # 1-20 for 6 NYCRR 243-8.5 (d)
- Condition # 1-21 for 6 NYCRR 243-8.5 (e)

The Cross-State Air Pollution Rule (CSAPR) regulations do not apply to the facility. The facility generation capacity is only 16 MW, less than the 25 MW threshold. CSAPR applies to Electric Generating Units (EGUs) rate at equal to or greater than 25 MW.

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

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

Authorized Signature: _____ Date: ____ / ____ / ____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

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

Facility Level

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



DEC GENERAL CONDITIONS

****** General Provisions ******

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

GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department

Applicable State Requirement: ECL 19-0305

Item 1.1:

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

Item 1.2:

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

Item 1.3:

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

Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:

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

Condition 3: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

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 2-1: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 2-1.1:

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

Item 2-1.3:

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

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

Item 4.1:

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

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

****** Facility Level ******

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

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:
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: 2-6003-00038/00008

Facility DEC ID: 2600300038



Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: RIVERBAY CORP
2049 BARTOW AVE
BRONX, NY 10475-4613

Facility: RIVERBAY CORP-CO-OP CITY
2049 BARTOW AVE
BRONX, NY 10475

Authorized Activity By Standard Industrial Classification Code:
6513 - APARTMENT BUILDING OPERATORS

Mod 0 Permit Effective Date: 06/10/2013

Permit Expiration Date: 06/09/2018

Mod 1 Permit Effective Date: 05/01/2014

Permit Expiration Date: 06/09/2018

Mod 2 Permit Effective Date: 06/07/2016

Permit Expiration Date: 06/09/2018



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) (2): Records of Monitoring, Sampling, and Measurement
- 1-1 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.5: Recordkeeping requirements
- 8 6 NYCRR 215.2: Open Fires - Prohibitions
- 9 6 NYCRR 200.7: Maintenance of Equipment
- 10 6 NYCRR 201-1.7: Recycling and Salvage
- 11 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 12 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
- 13 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
- 14 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 15 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 16 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 17 6 NYCRR 202-1.1: Required Emissions Tests
- 18 6 NYCRR 202-1.1: Required Emissions Tests
- 19 40 CFR Part 68: Accidental release provisions.
- 20 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 21 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 22 6 NYCRR Subpart 201-6: Emission Unit Definition
- 23 6 NYCRR 201-6.4 (c) (3): Compliance Certification
- 24 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 2-1 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 1-2 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 25 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 26 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- *2-2 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *2-3 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *2-4 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *2-5 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *2-6 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *27 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *29 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *30 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *31 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *33 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 1-3 6 NYCRR 201-7.1: Facility Permissible Emissions
- *1-4 6 NYCRR 201-7.1: Capping Monitoring Condition
- 34 6 NYCRR 202-1.2: Compliance Certification
- 35 6 NYCRR 202-1.3: Compliance Certification
- 36 6 NYCRR Subpart 202-2: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



- 37 6 NYCRR 202-2.1: Compliance Certification
- 38 6 NYCRR 211.1: Air pollution prohibited
- 39 6 NYCRR 225-1.2 (f): Compliance Certification
- 40 6 NYCRR 225-1.2 (g): Compliance Certification
- 41 6 NYCRR 225-1.2 (h): Compliance Certification
- 42 6 NYCRR 225-1.6: Compliance Certification
- 43 6 NYCRR 225-1.6: Compliance Certification
- 44 6 NYCRR 227-1.3: Compliance Certification
- 2-7 6 NYCRR 227-2.4 (a) (1) (ii): Compliance Certification
- 2-8 6 NYCRR 227-2.4 (a) (1) (ii): Compliance Certification
- 47 6 NYCRR 227-2.4 (a) (1) (ii): Compliance Certification
- 49 6 NYCRR 227-2.4 (b) (1) (ii): Compliance Certification
- 1-5 6 NYCRR 227-2.4 (f) (3): Compliance Certification
- 1-7 6 NYCRR 227-2.4 (f) (3): Compliance Certification
- 1-8 6 NYCRR 227-2.5 (c): Compliance Certification
- 2-9 6 NYCRR 227-2.6 (b): Compliance Certification
- 2-10 6 NYCRR 227-2.6 (b): Compliance Certification
- 2-11 6 NYCRR 227-2.6 (b): Compliance Certification
- 1-9 6 NYCRR 227.2 (b) (1): Compliance Certification
- 2-12 6 NYCRR 227.2 (b) (1): Compliance Certification
- 2-13 6 NYCRR 227.2 (b) (1): Compliance Certification
- 2-14 6 NYCRR 227.2 (b) (1): Compliance Certification
- 2-15 40CFR 60.43b(f), NSPS Subpart Db: Compliance Certification
- 50 40CFR 60.48c, NSPS Subpart Dc: Compliance Certification
- 51 40CFR 60.48c, NSPS Subpart Dc: Compliance Certification
- 1-22 40CFR 60, NSPS Subpart III: Applicability
- 1-23 40CFR 60, NSPS Subpart III: Compliance Certification
- 52 40CFR 60.4206, NSPS Subpart III: Duration of emission standards for
new stationary compression ignition IC engines
- 53 40CFR 60.4208, NSPS Subpart III: Stationary CI-IC Engines -
Installation and importing deadlines for engines produced in the previous
model year
- 1-24 40CFR 60.4209(a), NSPS Subpart III: Compliance Certification
- 1-25 40CFR 60.4211(e), NSPS Subpart III: Compliance Certification
- 54 40CFR 60.4218, NSPS Subpart III: General Provisions
- 1-26 40CFR 63, Subpart ZZZZ: Engines at Area sources of HAP
- 1-27 40CFR 63, Subpart ZZZZ: Compliance Certification
- 1-28 40CFR 63.6640(f), Subpart ZZZZ: Compliance Certification
- 55 40CFR 72.9, Subpart A: Compliance Certification
- 56 40CFR 75.11(d), Subpart B: Compliance Certification
- 57 40CFR 75.20, Subpart C: Compliance Certification
- Emission Unit Level**
- 58 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 59 6 NYCRR Subpart 201-6: Process Definition By Emission Unit
- 2-16 6 NYCRR Subpart 201-7: Emission Unit Permissible Emissions
- 60 6 NYCRR Subpart 201-7: Process Permissible Emissions
- 2-17 6 NYCRR 201-7.1: Emission Unit Permissible Emissions
- 1-29 6 NYCRR 201-7.1: Process Permissible Emissions

EU=U-00001,EP=00001

- 61 6 NYCRR 227-1.3 (a): Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



62 6 NYCRR 227-1.4 (b): Compliance Certification

EU=U-00001,EP=00001,Proc=017,ES=00001

69 6 NYCRR 227.2 (b) (1): Compliance Certification

EU=U-00002,EP=00002

70 6 NYCRR 227-1.3 (a): Compliance Certification

71 6 NYCRR 227-1.4 (b): Compliance Certification

EU=U-00003,EP=00003

77 6 NYCRR 227-1.3 (a): Compliance Certification

EU=U-00003,EP=00003,Proc=005,ES=HPB03

82 6 NYCRR 227.2 (b) (1): Compliance Certification

83 40CFR 60.8, NSPS Subpart A: Compliance Certification

84 40CFR 60.42b(j), NSPS Subpart Db: Compliance Certification

85 40CFR 60.43b(b), NSPS Subpart Db: Compliance Certification

86 40CFR 60.43b(f), NSPS Subpart Db: Compliance Certification

87 40CFR 60.44b(a)(1), NSPS Subpart Db: Compliance Certification

88 40CFR 60.44b(a)(1), NSPS Subpart Db: Compliance Certification

89 40CFR 60.45b(j), NSPS Subpart Db: Compliance Certification

90 40CFR 60.46b(e), NSPS Subpart Db: Compliance Certification

91 40CFR 60.47b(f), NSPS Subpart Db: Compliance Certification

92 40CFR 60.48b(b), NSPS Subpart Db: Compliance Certification

93 40CFR 60.49b(a), NSPS Subpart Db: Compliance Certification

EU=U-00003,EP=00003,Proc=006,ES=HPB03

97 40CFR 60.8, NSPS Subpart A: Compliance Certification

99 40CFR 60.46b(e), NSPS Subpart Db: Compliance Certification

100 40CFR 60.48b(b), NSPS Subpart Db: Compliance Certification

101 40CFR 60.49b, NSPS Subpart Db: Compliance Certification

EU=U-00004,EP=00004

102 6 NYCRR 225-1.2: Compliance Certification

103 6 NYCRR 227-1.3 (a): Compliance Certification

104 6 NYCRR 227-1.3 (a): Compliance Certification

105 6 NYCRR 227-1.3 (b): Compliance Certification

106 6 NYCRR 227-1.3 (b): Compliance Certification

107 6 NYCRR 227-2.6 (b): Compliance Certification

108 6 NYCRR 227-2.6 (b): Compliance Certification

109 6 NYCRR 231-2.7 (b): Compliance Certification

110 6 NYCRR 231-2.7 (b): Compliance Certification

111 6 NYCRR 231-2.7 (b): Compliance Certification

112 40CFR 52.21(j), Subpart A: Compliance Certification

113 40CFR 52.21(j), Subpart A: Compliance Certification

114 40CFR 52.21(j), Subpart A: Compliance Certification

115 40CFR 60.334(b), NSPS Subpart GG: Compliance Certification

116 40CFR 60.334(c), NSPS Subpart GG: Compliance Certification

117 40CFR 60.334(c)(1), NSPS Subpart GG: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



- 118 40CFR 60.334(c)(1), NSPS Subpart GG: Compliance Certification
- 119 40CFR 60.334(c)(1), NSPS Subpart GG: Compliance Certification
- 120 40CFR 60.334(h)(3), NSPS Subpart GG: Compliance Certification
- 121 40CFR 60.334(i)(1), NSPS Subpart GG: Compliance Certification

EU=U-00004,EP=00004,Proc=007,ES=GT004

- 122 6 NYCRR 231-2.7 (b): Compliance Certification
- 123 6 NYCRR 231-2.7 (b): Compliance Certification
- 124 6 NYCRR 231-2.7 (b): Compliance Certification
- 125 6 NYCRR 231-2.7 (b): Compliance Certification
- 126 40CFR 52.21(j), Subpart A: Compliance Certification
- 127 40CFR 52.21(j), Subpart A: Compliance Certification
- 128 40CFR 52.21(j), Subpart A: Compliance Certification
- 129 40CFR 52.21(j), Subpart A: Compliance Certification
- 130 40CFR 52.21(j), Subpart A: Compliance Certification
- 131 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00004,EP=00004,Proc=008,ES=GT004

- 132 6 NYCRR 231-2.7 (b): Compliance Certification
- 133 6 NYCRR 231-2.7 (b): Compliance Certification
- 134 6 NYCRR 231-2.7 (b): Compliance Certification
- 135 40CFR 52.21(j), Subpart A: Compliance Certification
- 136 40CFR 52.21(j), Subpart A: Compliance Certification
- 137 40CFR 52.21(j), Subpart A: Compliance Certification
- 138 40CFR 52.21(j), Subpart A: Compliance Certification
- 139 40CFR 52.21(j), Subpart A: Compliance Certification
- 140 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00004,EP=00004,Proc=009,ES=GT004

- 141 6 NYCRR 227-2.6 (b): Compliance Certification
- 142 6 NYCRR 231-2.7 (b): Compliance Certification
- 143 6 NYCRR 231-2.7 (b): Compliance Certification
- 144 6 NYCRR 231-2.7 (b): Compliance Certification
- 145 40CFR 52.21(j), Subpart A: Compliance Certification
- 146 40CFR 52.21(j), Subpart A: Compliance Certification
- 147 40CFR 52.21(j), Subpart A: Compliance Certification
- 148 40CFR 52.21(j), Subpart A: Compliance Certification
- 149 40CFR 52.21(j), Subpart A: Compliance Certification
- 150 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00004,EP=00004,Proc=011,ES=GTC04

- 151 6 NYCRR 227-2.6 (b): Compliance Certification
- 152 40CFR 52.21(j), Subpart A: Compliance Certification
- 153 40CFR 52.21(j), Subpart A: Compliance Certification
- 154 40CFR 52.21(j), Subpart A: Compliance Certification
- 155 40CFR 52.21(j), Subpart A: Compliance Certification
- 156 40CFR 52.21(j), Subpart A: Compliance Certification
- 157 40CFR 60.42b(k)(2), NSPS Subpart Db: Compliance Certification
- 158 40CFR 60.45b(k), NSPS Subpart Db: Compliance Certification
- 159 40CFR 60.49b(r), NSPS Subpart Db: Compliance Certification

EU=U-00004,EP=00004,Proc=P10,ES=GT004

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



160 6 NYCRR 227-2.6 (b): Compliance Certification
161 6 NYCRR 231-2.7 (b): Compliance Certification
162 6 NYCRR 231-2.7 (b): Compliance Certification
163 6 NYCRR 231-2.7 (b): Compliance Certification
164 40CFR 52.21(j), Subpart A: Compliance Certification
165 40CFR 52.21(j), Subpart A: Compliance Certification
166 40CFR 52.21(j), Subpart A: Compliance Certification
167 40CFR 52.21(j), Subpart A: Compliance Certification
168 40CFR 52.21(j), Subpart A: Compliance Certification
169 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00006,EP=00006

170 6 NYCRR 225-1.2: Compliance Certification
171 6 NYCRR 227-1.3 (a): Compliance Certification
172 6 NYCRR 227-1.3 (a): Compliance Certification
173 6 NYCRR 227-1.3 (b): Compliance Certification
174 6 NYCRR 227-1.3 (b): Compliance Certification
175 6 NYCRR 227-2.6 (b): Compliance Certification
176 6 NYCRR 227-2.6 (b): Compliance Certification
177 6 NYCRR 231-2.7 (b): Compliance Certification
178 6 NYCRR 231-2.7 (b): Compliance Certification
179 6 NYCRR 231-2.7 (b): Compliance Certification
180 6 NYCRR 231-2.7 (b): Compliance Certification
181 40CFR 52.21(j), Subpart A: Compliance Certification
182 40CFR 52.21(j), Subpart A: Compliance Certification
183 40CFR 60.334(b), NSPS Subpart GG: Compliance Certification
184 40CFR 60.334(c), NSPS Subpart GG: Compliance Certification
185 40CFR 60.334(c)(1), NSPS Subpart GG: Compliance Certification
186 40CFR 60.334(c)(1), NSPS Subpart GG: Compliance Certification
187 40CFR 60.334(c)(1), NSPS Subpart GG: Compliance Certification
188 40CFR 60.334(h)(3), NSPS Subpart GG: Compliance Certification
189 40CFR 60.334(i)(1), NSPS Subpart GG: Compliance Certification

EU=U-00006,EP=00006,Proc=012,ES=GT006

190 6 NYCRR 231-2.7 (b): Compliance Certification
191 6 NYCRR 231-2.7 (b): Compliance Certification
192 6 NYCRR 231-2.7 (b): Compliance Certification
193 40CFR 52.21(j), Subpart A: Compliance Certification
194 40CFR 52.21(j), Subpart A: Compliance Certification
195 40CFR 52.21(j), Subpart A: Compliance Certification
196 40CFR 52.21(j), Subpart A: Compliance Certification
197 40CFR 52.21(j), Subpart A: Compliance Certification
198 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00006,EP=00006,Proc=013,ES=GT006

199 6 NYCRR 231-2.7 (b): Compliance Certification
200 6 NYCRR 231-2.7 (b): Compliance Certification
201 6 NYCRR 231-2.7 (b): Compliance Certification
202 6 NYCRR 231-2.7 (b): Compliance Certification
203 6 NYCRR 231-2.7 (b): Compliance Certification
204 40CFR 52.21(j), Subpart A: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



205 40CFR 52.21(j), Subpart A: Compliance Certification
206 40CFR 52.21(j), Subpart A: Compliance Certification
207 40CFR 52.21(j), Subpart A: Compliance Certification
208 40CFR 52.21(j), Subpart A: Compliance Certification
209 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00006,EP=00006,Proc=014,ES=GT006

210 6 NYCRR 227-2.6 (b): Compliance Certification
211 6 NYCRR 231-2.7 (b): Compliance Certification
212 6 NYCRR 231-2.7 (b): Compliance Certification
213 6 NYCRR 231-2.7 (b): Compliance Certification
214 40CFR 52.21(j), Subpart A: Compliance Certification
215 40CFR 52.21(j), Subpart A: Compliance Certification
216 40CFR 52.21(j), Subpart A: Compliance Certification
217 40CFR 52.21(j), Subpart A: Compliance Certification
218 40CFR 52.21(j), Subpart A: Compliance Certification
219 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00006,EP=00006,Proc=015,ES=GT006

220 6 NYCRR 227-2.6 (b): Compliance Certification
221 6 NYCRR 231-2.7 (b): Compliance Certification
222 6 NYCRR 231-2.7 (b): Compliance Certification
223 6 NYCRR 231-2.7 (b): Compliance Certification
224 40CFR 52.21(j), Subpart A: Compliance Certification
225 40CFR 52.21(j), Subpart A: Compliance Certification
226 40CFR 52.21(j), Subpart A: Compliance Certification
227 40CFR 52.21(j), Subpart A: Compliance Certification
228 40CFR 52.21(j), Subpart A: Compliance Certification

EU=U-00006,EP=00006,Proc=016,ES=GTC06

229 6 NYCRR 227-2.6 (b): Compliance Certification
230 40CFR 52.21(j), Subpart A: Compliance Certification
231 40CFR 52.21(j), Subpart A: Compliance Certification
232 40CFR 52.21(j), Subpart A: Compliance Certification
233 40CFR 52.21(j), Subpart A: Compliance Certification
234 40CFR 52.21(j), Subpart A: Compliance Certification
235 40CFR 60.42b(k)(2), NSPS Subpart Db: Compliance Certification
236 40CFR 60.45b(k), NSPS Subpart Db: Compliance Certification

EU=U-00007,EP=00007,Proc=GEN,ES=GEN01

238 40CFR 60.4202(a)(2), NSPS Subpart IIII: Compliance Certification
1-30 40CFR 60.4204(b), NSPS Subpart IIII: Compliance Certification
239 40CFR 60.4205(b), NSPS Subpart IIII: Compliance Certification
240 40CFR 60.4207(b), NSPS Subpart IIII: Compliance Certification
241 40CFR 60.4207(b), NSPS Subpart IIII: Compliance Certification
242 40CFR 60.4207(b), NSPS Subpart IIII: Compliance Certification
243 40CFR 60.4209(a), NSPS Subpart IIII: Compliance Certification
244 40CFR 60.4211(a), NSPS Subpart IIII: Compliance Certification
245 40CFR 60.4211(c), NSPS Subpart IIII: Compliance Certification
247 40CFR 60.4214, NSPS Subpart IIII: Compliance Certification
249 40CFR 89.112, Subpart B: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

255 ECL 19-0301: Contaminant List

256 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities

257 6 NYCRR 211.2: Visible Emissions Limited

NOTE: * preceding the condition number indicates capping.



FEDERALLY ENFORCEABLE CONDITIONS

****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

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

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

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

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

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

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

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

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

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

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

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

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

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

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

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

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

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

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

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

ii. The liability of a permittee of the Title V

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

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

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

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

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

i. 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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



a shorter time period in the case of an emergency.

Item K: Permit Exclusion - ECL 19-0305

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

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

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

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

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

**Condition 1: Acceptable Ambient Air Quality
Effective between the dates of 06/10/2013 and 06/09/2018**

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



emission control required.

Condition 2: Fees

Effective between the dates of 06/10/2013 and 06/09/2018

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 06/10/2013 and 06/09/2018

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: Records of Monitoring, Sampling, and Measurement

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 4.1:

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.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 1-1: Compliance Certification
Effective between the dates of 05/01/2014 and 06/09/2018

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

Item 1-1.1:

The Compliance Certification activity will be performed for the Facility.

Item 1-1.2:

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.2(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

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

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

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies 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). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.4(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2014.

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

Condition 6: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

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:

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.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies 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). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:

USEPA Region 2
Air Compliance Branch
290 Broadway
New York, NY 10007-1866

The address for the RAPCE is as follows:

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 4/30/2014.
Subsequent reports are due on the same day each year

Condition 7: Recordkeeping requirements

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 202-2.5

Item 7.1:

(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 8: Open Fires - Prohibitions

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 215.2

Item 8.1:

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 8.2

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,

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 9: Maintenance of Equipment
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 200.7

Item 9.1:

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 10: Recycling and Salvage
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 10.1:

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 11: Prohibition of Reintroduction of Collected Contaminants to the air
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 201-1.8

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 11.1:

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 12: Exempt Sources - Proof of Eligibility
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 12.1:

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 13: Trivial Sources - Proof of Eligibility
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 13.1:

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 14: Requirement to Provide Information
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 14.1:

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 15: Right to Inspect
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 15.1:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

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

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

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

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

Condition 16: Off Permit Changes

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 16.1:

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

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

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

Condition 17: Required Emissions Tests

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 202-1.1

Item 17.1:

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 18: Required Emissions Tests
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 202-1.1

Item 18.1:

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

Condition 19: Accidental release provisions.
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40 CFR Part 68

Item 19.1:

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

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

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

Condition 20: Recycling and Emissions Reduction
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 82, Subpart F

Item 20.1:

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 21: Recycling and Emissions Reduction

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 82, Subpart F

Item 21.1:

The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVAC's in Subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR Part 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR Part 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR Part 82.161.
- d. Persons disposing of small appliances, MVAC's, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR Part 82.166. ("MVAC-like appliance as defined at 40 CFR Part 82.152)
- e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR Part 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR Part 82.166.

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

Condition 22: Emission Unit Definition

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 22.1(From Mod 2):

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

Emission Unit: U-00001

Emission Unit Description:

Emission Unit U-00001 is comprised of a 371 MM Btu/hr Low Pressure Riley Stoker boiler (Emission Source 00001) that was initially constructed in July 1968 and upgraded in 2015 to include new low NOx burner (LNB) and Flue Gas Recirculation (FGR) NOx controls along with conversion to ultra low sulfur # 2 distillate fuel oil with 15 ppm or

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



0.0015 % maximum sulfur by weight as part of the NO_x RACT Plan. The emissions exhaust through a stack, identified as Emission Point 00001. This low pressure boiler is capable of firing either natural gas (Process 002) or # 2 ULSD fuel oil (Process 017).

Boilers #1 & #2 (Emission Source 00001 in Emission Unit U-00001 and Emission Source HPB02 in Emission Unit U-00002) have a combined annual natural gas limit of 2,912 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 6.11 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler and the 414 MM Btu/hr Victory Energy high pressure boiler.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Building(s): PPLANT

Item 22.2(From Mod 2):

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

Emission Unit: U-00002

Emission Unit Description:

Emission Unit U-00002 is comprised of a 414 MM Btu/hr Victory Energy boiler (Emission Source HPB02) that will be constructed on 10/1/2016 and replaced the 371 MM Btu/hr low pressure Riley Stoker Model OD-1 boiler (Emission Source 00002) which was constructed in July 1968 and modified in May 1995 to operate with dual fuel burners. The emissions exhaust through a stack, identified as Emission Point 00002. This 414 MM btu/hr Victory Energy high pressure boiler (Emission Source HPB02) is capable of firing either natural gas (Process 040) or ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight (Process 030) and is equipped with low NO_x burners - LNB and flue gas recirculation - FGR (Emission Control HPC02). The # 6 fuel oil process has ended on 1/1/2015 when the 371 MM Btu/hr low pressure Riley Stoker boiler (Emission Source 00002) was replaced with the 414 MM Btu/hr Victory Energy boiler (Emission Source HPB02).

Boilers #1 & #2 (Emission Source 00001 in Emission Unit U-00001 and Emission Source HPB02 in Emission Unit U-00002) have a combined annual natural gas limit of 2,912

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 6.11 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler and the 414 MM Btu/hr Victory Energy high pressure boiler.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Building(s): PPLANT

Item 22.3(From Mod 2):

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

Emission Unit: U-00003

Emission Unit Description:

Emission Unit U-00003 is comprised of one state-of-the art new high pressure boiler (Rentech Model D Watertube), rated at 212 MM BTU/hr (Emission Source S0003), firing ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight (Process 005) or natural gas (Process 006), venting to existing stack (Emission Point 00003) for Emission Source ES004 in Emission Unit U-00003. The new boiler will be equipped with a low NOx burner and Flue Gas Recirculation - FGR (Emission Control C0003). Potential emissions of all criteria air pollutants will be significantly lower for the new boiler.

This is a replacement for the older high pressure boiler (Emission Source ES004 in Emission Unit U-00003), that was a Riley-Stoker Model OD-1, rated at 377 MM BTU/hr, firing #6 fuel oil or natural gas and was de-commissioned due to excessive repair needs. The 212 MM BTU/hr high pressure Rentech boiler has an annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 5.49 million gallons.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Building(s): PPLANT

Item 22.4(From Mod 2):

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

Emission Unit: U-00004

Emission Unit Description:

Emission Unit U-00004 is comprised of a Combustion Gas Turbine (Siemens Model GT-400), rated at 131 MM Btu/hr (Emission Source GT004) firing natural gas (Processes 009 & P10) or ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight (Processes 007 & 008). The CTG is rated to produce 12 MW of electrical power. The CTG exhausts gas is further heated by a natural gas fired (Process 011) duct burner (Emission Control GTC04), rated at 60.7 MM Btu/hr. The duct burner design operating rates are 46 MM Btu/hr at maximum inlet temperature of 55 degrees Fahrenheit, and 53.3 MM Btu/hr at minimum inlet temperature of minus 5 degrees Fahrenheit duct burner. The exhaust gas then passes through an oxidation catalyst to destroy carbon monoxide (CO) and Volatile Organic Compounds (VOC) and then through a Selective Catalytic Oxidation (SCR) system to destroy nitrogen oxides (NOx). The gas then vents out of a stack (Emission Point 00004) mounted on top of a once through steam generator (OTSG). To improve turbine performance, the inlet air is cooled to a maximum of 55 degrees Fahrenheit. The gas turbine is limited to operating a maximum of 2,160 hours/year on distillate fuel oil. In addition, the gas turbine may not operate at low load for more than 50 % of the operating hours.

Building(s): PPLANT

Item 22.5(From Mod 2):

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

Emission Unit: U-00006

Emission Unit Description:

Emission Unit U-00006 is comprised of a Combustion Gas Turbine (Siemens Model GT-400), rated at 131 MM Btu/hr (Emission Source GT006) firing natural gas (Processes 14 & 15) or ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight (Processes 012 & 013). The CTG is rated to produce 12 MW of electrical power. The CTG exhausts gas is further heated by a natural gas fired (Process 016) duct burner (Emission Control GTC06), rated at 60.7 MM Btu/hr. The duct burner design operating rates are 46 MM Btu/hr at maximum inlet temperature of 55 degrees Fahrenheit, and 53.3 MM Btu/hr

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



at minimum inlet temperature of minus 5 degrees Fahrenheit duct burner. The exhaust gas then passes through an oxidation catalyst to destroy carbon monoxide (CO) and Volatile Organic Compounds (VOC) and then through a Selective Catalytic Oxidation (SCR) system to destroy nitrogen oxides (NO_x). The gas then vents out of a stack (Emission Point 00006) mounted on top of a once through steam generator (OTSG). To improve turbine performance, the inlet air is cooled to a maximum of 55 degrees Fahrenheit. The gas turbine is limited to operating a maximum of 2,160 hours/year on distillate fuel oil. In addition, the gas turbine may not operate at low load for more than 50 % of the operating hours.

Building(s): PPLANT

Item 22.6(From Mod 1):

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

Emission Unit: U-00007

Emission Unit Description:

Emission Unit U-00007 consists of a new 1,500 KW (2000 bhp) diesel fuel "black start" non-emergency diesel generator, identified as Emission Source GEN01. This engine will burn only diesel fuel (Process GEN). The generator/engine exhausts to its own separate stack. The flue gases generated from Emission Source GEN01 vent to the atmosphere via a stack identified as Emission Point 00007.

The "black start" emergency diesel generator was purchased in February, 2008. The installation date was 2/3/2011, the date the engine was set on its support structure. The operation date was 4/1/2011.

This "black start" non-emergency generator engine burns ultra low sulfur fuel with maximum sulfur content of 15 ppm, in accordance with 40 CFR 60.4207(b) and 40 CFR 80.510(b). This non-emergency generator is 1,500 KW (2000 bhp). The generator has 12 cylinders with a total displacement of 57.2 liters, 4.77 liters per cylinder.

The new 1,500 KW non-emergency engine generator (Emission Source GEN01) in Emission Unit U-00007 complies with the EPA standards that apply at the time of purchase (February 2008). It is assumed that the generator is 2008 Model and the displacement is 4.77 liters/cylinder (less than 10 liters per cylinder), and meets the certification standards in 40 CFR 89.113 (in accordance with 40 CFR 60.4202(a)(2)).

The engine associated with this generator is subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Stationary compression Ignition Internal Combustion Engines, and 40 CFR Part 63, subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The two EPA NSPS regulations applicable to Riverbay Corp's black-start engine are 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. Subpart IIII, Part 60.4204 (non-emergency engines), stipulates Tier 2 emission rates for 2007 model and later engines with displacement less than 30 liters per cylinders. Riverbay Corp is subject to Subpart ZZZZ as an "area source." According to Subpart 60.6590, the installation of the black start engine is new because construction commenced after June 12, 2006; and meets the requirements of Subpart ZZZZ by meeting the requirements of Subpart IIII.

Manufacturer - MTU Detroit Diesel, Model 12V4000 G43 4cycle unit rated at 1500 KW (2000 bhp) capable of firing diesel (#2 fuel oil).

Model/Model 3/Type - 1500 KW / 12V4000 G43 (T1238A34) / 4 cycle

Model Year for the engine is 2008

Fuel Type - Diesel #2

Fuel consumption rating (standby mode)

100% power rating - 111.0 gal/hr

75% power rating - 85.3 gal/hr

50% power rating - 59.6 gal/hr

Maximum power (standby mode) - 2,328 bhp / 1,736 KW

Exhaust system rating (standby mode)

Stack Gas Temperature - 815 degrees Fahrenheit

Stack Gas Volumetric Flow rate @ stack

temperature - 12,078 CFM

Maximum Allowable Back pressure - 34.1 inches of H2O

Total displacement of engine is 57.2 liters for 12 cylinders; unit is classified as compression ignition (CI) 4-stroke lean-burn stationary reciprocating internal combustion engine - CI 4S LB RICE. Therefore, the displacement per cylinder is 4.77 liters.

Standard Feature - EPA Tier 2 Certified (40 CFR Part 89) - Tier 2 Non-road Diesel Emission Standards for engines greater than 560 KW (750 Hp) power rating and has the

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



following air emissions ratings:

Contaminant	Grams/KW-hr	grams / bhp-hr
CO	3.5	
2.6		
HC	-	
-		
NMHC + NOx	6.4	
4.8		
NOx	-	
-		
PM	0.2	
0.15		

Building(s): PPLANT

Condition 23: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 23.1:

The Compliance Certification activity will be performed for the Facility.

Item 23.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Semi-annual Compliance Certification - Submit Semi-annual monitoring report for Title V permit conditions to USEPA and NYSDEC.

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 10/30/2013.

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

Condition 24: Progress Reports Due Semiannually

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 24.1:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 2-1: Non Applicable requirements

Effective between the dates of 06/07/2016 and 06/09/2018

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

Item 2-1.1:

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

(From Mod 2)

40 CFR 97.406

Reason: The Cross-State Air Pollution Rule (CSAPR) regulations do not apply to the facility. The facility generation capacity is only 16 MW, less than the 25 MW threshold.

CSAPR applies to Electric Generating Units (EGUs) rate at equal to or greater than 25 MW.

97.406 AAAAA

97.506 BBBB

97 606 CCCCC

Condition 1-2: Non Applicable requirements

Effective between the dates of 05/01/2014 and 06/09/2018

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

Item 1-2.1:

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

(From Mod 1)

6 NYCRR Subpart 231-6

Reason: The permit application addresses the requirements of Subpart 231-6 with the inclusion of a "netting analysis" required by Subpart 231-6.2. The NA

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



contaminants for this facility, which is located in a severe ozone area, are NO_x and VOCs. The only NA contaminant for which the project emission potential (PEP) is greater than the significant project threshold (SPT) is NO_x. The netting analysis is specific to NO_x. About January 2010, Riverbay Corp began operation of its combustion gas turbines (emission Units U-00004 and U-00006). The netting analysis includes the NO_x PTE emissions from the gas turbines. The netting analysis shows that the reclassification of Emission Unit U-00007 from a black start emergency generator to a peak shaving engine unit, with a 1,055 annual operating hours limit, will not represent a "New Source Review major modification" to the facility. Since the PEP (14.03 tons of NO_x) is greater than the SPT (2.5 tons), the reclassification is considered a "significant project". However; since the net emission increase (NEI) for the facility derived from a netting analysis including the recent operation of the combustion gas turbines commencing in 2010 (10.87 tons of NO_x) is less than the significant net emission increase threshold (SNEIT) of 25 tons, the re-classification does not represent a NSR major modification.

The PTEs for the emission units are based upon specific limitations specified in the noted permit conditions.

The contemporaneous period is October, 2008 thru October, 2013.

The PEP is associated with 1,055 hours of operation per year at Tier 2 emission level.

The PTEs for the emission units are based upon specific limitations specified in the noted permit conditions.

The NEI (Net emission Increase) for NO_x = PEP + ERCs for Combustion Gas Turbines EU: U-0004 & U-0006

$$= 14.03 \text{ tpy} + 10.87 \text{ tpy}$$

$$= 24.90 \text{ tpy, which is } < 25 \text{ tpy}$$

The PEP (Project Emission Potential) is associated with 1,055 hours of operation per year at Tier 2 emission level.

40 CFR 89.112

Reason: 40 CFR 89.112, Subpart B is not applicable to

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



the RBC black start / peak shaving engine (Emission Source GEN01 in Emission Unit U-00007). Subpart B presents Tables 1 and 2 emission standards, which for engines rated above 500 kW pertain to engines model years 2000 and 2006. The model year for Emission Source GEN01 in Emission Unit U-00007 is 2008.

40 CFR 89.113

Reason: 40 CFR 89.113, Subpart B is not applicable to the RBC black start / peak shaving engine (Emission Source GEN01 in Emission Unit U-00007). Subpart B presents Tables 1 and 2 emission standards, which for engines rated above 500 kW pertain to engines model years 2000 and 2006. The model year for Emission Source GEN01 in Emission Unit U-00007 is 2008.

Condition 25: Non Applicable requirements
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 25.1:

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 Subpart 231-2

Emission Unit: U00001

Reason: The existing boilers are not subject to NSR regulations 6 NYCRR 231-2. To obtain internal emission offsets for NO_x, and VOC, however; limitations will be taken in this permit to limit the emissions by restricting the amount of #6 fuel oil and natural gas which can be combusted in the boilers. The total amount of #6 fuel oil consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1.3 MM gallons/year. The amount of natural gas consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1,040 MM CF/year, reduced by 370 cubic feet per gallon of oil combusted.

6 NYCRR Subpart 231-2

Emission Unit: U00006

Reason: The Total Potential Emissions increase from the installation of both combustion gas turbine units (U-00004 and U-00006) will not exceed the allowable increments for non-attainment pollutants NO_x and VOC as contained in 6 NYCRR 231-2.12 Table 2, including operating limitations on the gas turbine operation and credit for internal offsets from operating limitations on boiler emission units

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



U-00001, U-00002, and U-00003.

6 NYCRR Subpart 231-2

Emission Unit: U00004

Reason: The Total Potential Emissions increase from the installation of both combustion gas turbine units (U-00004 and U-00006) will not exceed the allowable increments for non-attainment pollutants NO_x and VOC as contained in 6 NYCRR 231-2.12 Table 2, including operating limitations on the gas turbine operation and credit for internal offsets from operating limitations on boiler emission units U-00001, U-00002, and U-00003.

6 NYCRR Subpart 231-2

Emission Unit: U00002

Reason: The existing boilers are not subject to NSR regulations 6 NYCRR 231. To obtain internal emission offsets for NO_x and VOC, however, limitations will be taken in this permit to limit the emissions by restricting the amount of # 6 fuel oil and natural gas which can be used in the boilers. The total amount of # 6 fuel oil consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1.3 MM gallons/year. The amount of natural gas consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1,040 MM CF/year, reduced by 370 cubic feet per gallon of oil burned.

6 NYCRR Subpart 231-2

Emission Unit: U00003

Reason: Since this facility is located in a severe ozone non-attainment area and ozone transport region, the only non-attainment contaminants to be reviewed for Part 231 are NO_x and VOC. The new high pressure & low release rate boiler was installed in 2006 and was a replacement of an emission source with similar equipment using the same emission stack, with lower input heat rating 212 MM BTU/hr vs. 377 MM BTU/hr), and a decrease in the Maximum Annual Potential (MAP) emissions of all pollutants compared to the installed boiler. Therefore, the projected actual annual emissions of the installed boiler are less than the baseline actual emissions of the old boiler and, therefore, the new emission source is not subject to Part 231 New Source Review for either NO_x or VOC in accordance with 6 NYCRR 231-2.2(d)(6) exemptions and 6 NYCRR 231-2.1(b)(40) definitions of a source project.

The replacement HP boiler is not subject to NSR regulations 6 NYCRR 231-2. To obtain internal emission offsets for NO_x and VOC, however, limitations will be taken in this permit to limit the emissions by restricting the amount of # 2 fuel oil and natural gas which can be

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



used in the boiler. The total amount of # 2 fuel oil consumption in Emission Unit U-00003 will not exceed 2.5 MM gallons/year. The amount of natural gas consumption in Emission Unit U-00003 will not exceed 1,800 MM CF/year, reduced by 320 cubic feet per gallon of oil burned.

40 CFR Part 52, Subpart A

Emission Unit: U00006

Reason: The Total Potential Emissions increase from the installation of both combustion gas turbine units (U-00004 and U-00006) will not exceed the allowable increments for non-attainment pollutants CO, PM, PM-10, SO₂ and all other listed PSD applicable pollutants as contained in 40 CFR 52, including operating limitations on the gas turbine operation and credit for internal offsets from operating limitations on boiler emission units U-00001, U-00002, and U-00003.

40 CFR Part 52, Subpart A

Emission Unit: U00002

Reason: The existing boilers are not subject to PSD regulations 40 CFR 52. To obtain internal emission offsets for PM, PM-10, CO and SO₂, however, limitations will be taken in this permit to limit the emissions by restricting the amount of # 6 fuel oil and natural gas which can be used in the boilers. The total amount of # 6 fuel oil consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1.3 MM gallons/year. The amount of natural gas consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1,040 MM CF/year, reduced by 370 cubic feet per gallon of oil burned.

40 CFR Part 52, Subpart A

Emission Unit: U00004

Reason: The Total Potential Emissions increase from the installation of both combustion gas turbine units (U-00004 and U-00006) will not exceed the allowable increments for non-attainment pollutants CO, PM, PM-10, SO₂ and all other listed PSD applicable pollutants as contained in 40 CFR 52, including operating limitations on the gas turbine operation and credit for internal offsets from operating limitations on boiler emission units U-00001, U-00002, and U-00003.

40 CFR Part 52, Subpart A

Emission Unit: U00001

Reason: The existing boilers are not subject to PSD regulations 40 CFR 52. To obtain internal emission offsets for PM, PM-10, CO and SO₂, however, limitations will be taken in this permit to limit the emissions by restricting the amount of # 6 fuel oil and natural gas

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



which can be used in the boilers. The total amount of # 6 fuel oil consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1.3 MM gallons/year. The amount of natural gas consumption in Emission Unit U-00001 and Emission Unit U-00002 combined will not exceed 1,040 MM CF/year, reduced by 370 cubic feet per gallon of oil burned.

40 CFR 52.21

Emission Unit: U00003

Reason: The new high pressure & low release rate boiler to be installed is a replacement of an emission source with similar equipment using the same emission stack, with lower input heat rating 212 MM BTU/hr vs. 377 MM BTU/hr), and a decrease in the Maximum Annual Potential (MAP) emissions of all pollutants compared to the existing boiler. Therefore, the projected actual annual emissions of the new boiler are less than the baseline actual emissions of the existing boiler and, therefore, are not subject to PSD regulations in accordance with 40 CFR 52.21 (a)(2)(iv)(c).

The replacement HP boiler is not subject to PSD regulations 40 CFR 52. To obtain internal emission offsets for PM, PM-10, CO and SO₂, however, limitations will be taken in this permit to limit the emissions by restricting the amount of # 2 fuel oil and natural gas which can be used in the boiler. The total amount of # 2 fuel oil consumption in Emission Unit U-00003 will not exceed 2.5 MM gallons/year. The amount of natural gas consumption in Emission Unit U-00003 will not exceed 1,800 MM CF/year, reduced by 320 cubic feet per gallon of oil burned.

40 CFR 60.42c

Emission Unit: U00004

Reason: Since this facility is located in a severe ozone non-attainment area and ozone transport region, the only non-attainment contaminants to be reviewed for Part 231 are NO_x and VOC. The new high pressure boiler was installed in 2006 and was a replacement of an emission source with similar equipment using the same emission stack, with lower input heat rating 212 MM BTU/hr vs. 377 MM BTU/hr), and a decrease in the Maximum Annual Potential (MAP) emissions of all pollutants compared to the installed boiler. Therefore, the projected actual annual emissions of the installed boiler are less than the baseline actual emissions of the old boiler and, therefore, the new emission source is not subject to Part 231 New Source Review for either NO_x or VOC in accordance with 6 NYCRR 231-2.2(d)(6) exemptions and 6 NYCRR 231-2.1(b)(40) definitions of a source project.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The replacement HP boiler is not subject to NSR regulations 6 NYCRR 231-2. To obtain internal emission offsets for NOx and VOC, however, limitations will be taken in this permit to limit the emissions by restricting the amount of # 2 fuel oil and natural gas which can be used in the boiler. The total amount of # 2 fuel oil consumption in Emission Unit U-00003 will not exceed 2.5 MM gallons/year. The amount of natural gas consumption in Emission Unit U-00003 will not exceed 1,800 MM CF/year, reduced by 320 cubic feet per gallon of oil burned.

40 CFR 60.42c

Emission Unit: U00006

Reason: The Duct Burners (Emission Sources GT006 & GTC06) are only natural gas fired and, as a result, are not subject to any regulation on Sulfur Dioxide emissions in 40 CFR 60 Subpart Dc, or testing, monitoring, and reporting requirements in 40 CFR 60.44c and 40 CFR 60.46c, or 40 CFR 60.48c.

40 CFR 60.42c

Emission Unit: U00004

Reason: The Duct Burners (Emission Sources GT004 & GTC04) are only natural gas fired and, as a result, are not subject to any regulation on Sulfur Dioxide emissions in 40 CFR 60 Subpart Dc, or testing, monitoring, and reporting requirements in 40 CFR 60.44c and 40 CFR 60.46c, or 40 CFR 60.48c.

40 CFR Part 63, Subpart YYYY

Emission Unit: U00004

Reason: The facility Potential Emissions of all combined Hazardous Air Pollutant (HAP) Emissions before and following the installation of both combustion gas turbine units (U-00004 and U-00006) will not exceed 25 Tons per year, and the Potential Emissions of any individual (speciated) HAP will not exceed 10 Tons/year. As a result, the facility is not a Major Source of HAPs emissions, and is not subject to 40 CFR 63, Subpart YYYY for gas turbines.

40 CFR Part 63, Subpart YYYY

Emission Unit: U00006

Reason: The facility Potential Emissions of all combined Hazardous Air Pollutant (HAP) Emissions before and following the installation of both combustion gas turbine units (U-00004 and U-00006) will not exceed 25 Tons per year, and the Potential Emissions of any individual (speciated) HAP will not exceed 10 Tons/year. As a result, the facility is not a Major Source of HAPs emissions, and is not subject to 40 CFR 63, Subpart YYYY

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



for gas turbines.

Condition 26: Facility Permissible Emissions
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 26.1:

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

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

per year	CAS No: 0NY075-00-0 (From Mod 2)	PTE: 160,302 pounds
	Name: PARTICULATES	
per year	CAS No: 0NY075-00-5 (From Mod 2)	PTE: 97,893 pounds
	Name: PM-10	
per year	CAS No: 0NY210-00-0 (From Mod 2)	PTE: 488,555 pounds
	Name: OXIDES OF NITROGEN	

Condition 2-2: Capping Monitoring Condition
Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 2-2.1:

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 2-2.2:

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

Item 2-2.3:

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 2-2.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 2-2.5:

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 2-2.6:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001
Process: 017

Emission Point: 00001
Emission Source: 00001

Emission Unit: U-00001
Process: 017

Emission Point: 00001
Emission Source: 00010

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPB02

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPC02

Regulated Contaminant(s):

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

Item 2-2.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001) and the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source HPB02 in Emission Unit U-00002) have a total combined annual ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil consumption limit of 6.11 million gallons per year based on Annual Maximum Rolled Daily.

Process 017 is the ultra low sulfur distillate oil #2 combustion process in the 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001), and Process 030 is the ultra low sulfur distillate oil #2 combustion process in the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



HPB02 in Emission Unit U-00002).

Allowed natural gas consumption will be reduced by the amount of any ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil consumed by the ratio of 370 cubic feet of natural gas to one gallon of ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil burned.

The heating value utilized for ULSD is 138,000 Btu/gal instead of the nominal 140,000 Btu/gal because this is the heat value utilized in the stack test report dated October 15, 2014 for Emission Unit U-00003 PM-10 testing.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Upper Permit Limit: 6.11 million gallons per year

Monitoring Frequency: DAILY

Averaging Method: ANNUAL TOTAL ROLLED DAILY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2017.

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

Condition 2-3: Capping Monitoring Condition

Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 2-3.1:

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

40 CFR 52.21

Item 2-3.2:

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

Item 2-3.3:

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

Item 2-3.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 2-3.5:

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

Item 2-3.6:

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

Emission Unit: U-00003	Emission Point: 00003
Process: 005	Emission Source: HPB03
Emission Unit: U-00003	Emission Point: 00003
Process: 005	Emission Source: HPC03

Regulated Contaminant(s):
CAS No: 0NY075-00-5 PM-10

Item 2-3.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The 212 MM Btu/hr Rentech High Pressure Boiler #3 (Emission Source HPB03 in Emission Unit U-00003) has an annual ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil consumption limit of 5.49 million gallons per year based on Annual Total Rolled Daily and based on the stack test for PM-10 = 0.02 lbs/MM Btus.

Process 005 is the ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil combustion process in the 212 MM Btu/hr Rentech High Pressure Boiler #3 (Emission Source HPB03 in Emission Unit U-00003).

Natural gas use will be reduced by the amount of the ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil used.

The heating value utilized for ULSD is 138,000 Btu/gal instead of the nominal 140,000 Btu/gal because this is the heat value utilized in the stack test report dated October 15, 2014 for Emission Unit U-00003 PM-10 testing.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Upper Permit Limit: 5.49 million gallons per year
Monitoring Frequency: DAILY
Averaging Method: ANNUAL TOTAL ROLLED DAILY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 4/30/2017.
Subsequent reports are due every 12 calendar month(s).

Condition 2-4: Capping Monitoring Condition
Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 2-4.1:

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

40 CFR 52.21

Item 2-4.2:

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

Item 2-4.3:

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

Item 2-4.4:

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

Item 2-4.5:

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

Item 2-4.6:

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00001
Process: 017

Emission Point: 00001
Emission Source: 00001

Emission Unit: U-00001
Process: 017

Emission Point: 00001
Emission Source: 00010

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPB02

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPC02

Emission Unit: U-00003
Process: 005

Emission Point: 00003
Emission Source: HPB03

Emission Unit: U-00003
Process: 005

Emission Point: 00003
Emission Source: HPC03

Regulated Contaminant(s):

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

Item 2-4.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001), the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source HPB02 in Emission Unit U-00002), and the 212 MM Btu/hr Rentech High Pressure Boiler #3 (Emission Source HPB03 in Emission Unit U-00003) have a total combined annual ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil consumption limit of 13.72 million gallons per year based on Annual Maximum Rolled Daily.

Process 017 is the ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil combustion process in the 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001), Process 030 is the ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil combustion process in the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source HPB02 in Emission Unit U-00002), and Process 005 is the ULSD (ultra low sulfur distillate oil #2 of 15 ppm maximum sulfur by weight) fuel oil combustion process in the 212 MM Btu/hr Rentech High Pressure Boiler #3 (Emission Source HPB03 in Emission Unit U-00003).

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Allowed natural gas consumption will be reduced by the amount of ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil burned, by the ratio of 370 cubic feet of natural gas to one gallon of ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil burned.

The heating value utilized for ULSD is 138,000 Btu/gal instead of the nominal 140,000 Btu/gal because this is the heat value utilized in the stack test report dated October 15, 2014 for Emission Unit U-00003 PM-10 testing.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Upper Permit Limit: 13.72 million gallons per year

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2016.

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

Condition 2-5: Capping Monitoring Condition

Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 2-5.1:

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

6 NYCRR Subpart 231-2

Item 2-5.2:

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

Item 2-5.3:

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

Item 2-5.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 2-5.5:

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

Item 2-5.6:

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

Emission Unit: U-00001 Process: 002	Emission Point: 00001 Emission Source: 00001
Emission Unit: U-00001 Process: 002	Emission Point: 00001 Emission Source: 00010
Emission Unit: U-00002 Process: 040	Emission Point: 00002 Emission Source: HPB02
Emission Unit: U-00002 Process: 040	Emission Point: 00002 Emission Source: HPC02

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

Item 2-5.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001) and the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source HPB02 in Emission Unit U-00002) have a total combined annual natural gas fuel consumption limit of 2,912 million cubic feet of gas per year based on Annual Maximum Rolled Daily.

Process 002 is the natural gas combustion process in the 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001), and Process 040 is the natural gas combustion process in the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source HPB02 in Emission Unit U-00002).

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Allowed natural gas consumption will be reduced by the amount of any ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil consumed by the ratio of 370 cubic feet of natural gas to one gallon of ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil burned.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: NATURAL GAS

Upper Permit Limit: 2912 million cubic feet per year

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2016.

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

Condition 2-6: Capping Monitoring Condition

Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 2-6.1:

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 2-6.2:

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

Item 2-6.3:

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 2-6.4:

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 2-6.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement,

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 2-6.6:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001
Process: 002

Emission Point: 00001
Emission Source: 00001

Emission Unit: U-00001
Process: 002

Emission Point: 00001
Emission Source: 00010

Emission Unit: U-00002
Process: 040

Emission Point: 00002
Emission Source: HPB02

Emission Unit: U-00002
Process: 040

Emission Point: 00002
Emission Source: HPC02

Emission Unit: U-00003
Process: 006

Emission Point: 00003
Emission Source: HPB03

Emission Unit: U-00003
Process: 006

Emission Point: 00003
Emission Source: HPC03

Regulated Contaminant(s):

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

Item 2-6.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001), the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source HPB02 in Emission Unit U-00002), and the 212 MM Btu/hr Rentech High Pressure Boiler #3 (Emission Source HPB03 in Emission Unit U-00003) have a total combined annual natural gas fuel consumption limit of 4,748 million standard cubic feet per year based on Annual Maximum Rolled Daily.

Process 002 is the natural gas combustion process in the 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler #1 (Emission Source 00001 in Emission Unit U-00001), Process 040 is the natural gas combustion process in the 414 MM Btu/hr Victory Energy High Pressure Boiler #2 (Emission Source HPB02 in Emission Unit U-00002), and Process 006 is the natural gas combustion process in the 212 MM Btu/hr

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Rentech High Pressure Boiler #3 (Emission Source HPB03 in Emission Unit U-00003).

Allowed natural gas consumption will be reduced by the amount of ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil burned, by the ratio of 370 cubic feet of natural gas to one gallon of ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil burned.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: NATURAL GAS

Upper Permit Limit: 4748 million cubic feet per year

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2016.

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

Condition 27: Capping Monitoring Condition

Effective between the dates of 06/10/2013 and 06/09/2018

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 231-2.7 (b)

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.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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: U-00004	Emission Point: 00004
Process: 008	Emission Source: GT004

Emission Unit: U-00004	Emission Point: 00004
Process: 008	Emission Source: GTC04

Emission Unit: U-00004	Emission Point: 00004
Process: P10	Emission Source: GT004

Emission Unit: U-00004	Emission Point: 00004
Process: P10	Emission Source: GTC04

Emission Unit: U-00006	Emission Point: 00006
Process: 013	Emission Source: GT006

Emission Unit: U-00006	Emission Point: 00006
Process: 013	Emission Source: GTC06

Emission Unit: U-00006	Emission Point: 00006
Process: 015	Emission Source: GT006

Emission Unit: U-00006	Emission Point: 00006
Process: 015	Emission Source: GTC06

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

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 total maximum combined operating hours at 70 % load, firing # 2 fuel oil (Processes 008 & 013), and for at 70% load, firing natural gas (Processes P10 & 015), in the two Siemens Model 400-GT combustion turbines (Emission Sources GT004 & GT006) with maximum heat input rating of 110.6 MM Btu/hr each is 7,000 hours/year (except during start-up and shut-down) after conducting the approved stack testing, which was performed on 5-4-2010.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The maximum heat input rating of the two Siemens combustion turbines (Emission Sources GT004 & GT006) at full load (100%) is 138.5 MM Btu/hr each, and the minimum heat input rating of the same two combustion turbines at low load (70%) is 91.4 MM Btu/hr each.

PM-10/Particulates emission test is limited to 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) when firing # 2 fuel oil, and equal to 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) when firing natural gas.

Work Practice Type: HOURS PER YEAR OPERATION

Parameter Monitored: FUEL CONSUMPTION

Upper Permit Limit: 7,000 hours per year

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 29: Capping Monitoring Condition

Effective between the dates of 06/10/2013 and 06/09/2018

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:

40 CFR 52.21

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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: U-00004 Process: 007	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: 007	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00004 Process: 008	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: 008	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00006 Process: 012	Emission Point: 00006 Emission Source: GT006
Emission Unit: U-00006 Process: 012	Emission Point: 00006 Emission Source: GTC06
Emission Unit: U-00006 Process: 013	Emission Point: 00006 Emission Source: GT006
Emission Unit: U-00006 Process: 013	Emission Point: 00006 Emission Source: GTC06

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

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:

Maximum total operating hours on # 2 fuel oil for combined Processes 007 & 012 at maximum load (100%) and Processes 008 & 013 at minimum load (70 %) for the two combined Siemens Model 400-GT combustion turbines (Emission Sources GT004 & GT006) shall not exceed 4,320

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



hours/year at any load, calculated on a daily rolling basis, following conducting the approved stack tests, which were performed on 5-4-2010.

The maximum heat input rating of the two Siemens combustion turbines (Emission Sources GT004 & GT006) at full load (100%) is 138.5 MM Btu/hr each, and the minimum heat input rating of the same two combustion turbines at low load (70%) is 91.4 MM Btu/hr each.

PM-10/Particulates emission test is limited to 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) or less on # 2 fuel oil at 100% load (Processes 007 & 012) and to 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) or less on # 2 fuel oil at 70 % load (Processes 008 & 013) after conducting the approved the stack tests.

Work Practice Type: HOURS PER YEAR OPERATION

Parameter Monitored: NUMBER 2 OIL

Upper Permit Limit: 4320 hours per year

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 30: Capping Monitoring Condition

Effective between the dates of 06/10/2013 and 06/09/2018

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:

40 CFR 52.21 (j)

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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.

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: U-00004 Process: 007	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: 007	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00004 Process: 008	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: 008	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00004 Process: 009	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: 009	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00004 Process: P10	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: P10	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00006 Process: 012	Emission Point: 00006 Emission Source: GT006
Emission Unit: U-00006 Process: 012	Emission Point: 00006 Emission Source: GTC06
Emission Unit: U-00006 Process: 013	Emission Point: 00006 Emission Source: GT006



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Emission Unit: U-00006
Process: 013

Emission Point: 00006
Emission Source: GTC06

Emission Unit: U-00006
Process: 014

Emission Point: 00006
Emission Source: GT006

Emission Unit: U-00006
Process: 014

Emission Point: 00006
Emission Source: GTC06

Emission Unit: U-00006
Process: 015

Emission Point: 00006
Emission Source: GT006

Emission Unit: U-00006
Process: 015

Emission Point: 00006
Emission Source: GTC06

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GT006

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 30.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

Total maximum hours of operation on # 2 fuel oil and on natural gas is limited to 14,000 hours per year for the combined facility gas combustion turbines (Emission Sources GT004 & GT006), calculated on a daily rolling basis. Therefore, at all loads, total combined operation of the two gas combustion turbines (Emission Sources GT004 & GT006) on # 2 fuel oil and on natural gas is limited to 14,000 hours per year. Stack test was performed on 5-4-2010.

The maximum heat input rating of the two Siemens combustion turbines (Emission Sources GT004 & GT006) at full load (100%) is 138.5 MM Btu/hr each, and the minimum heat input rating of the same tow combustion turbines at low load (70%) is 91.4 MM Btu/hr each.

Work Practice Type: HOURS PER YEAR OPERATION

Parameter Monitored: FUEL CONSUMPTION

Upper Permit Limit: 14000 hours

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: DAILY



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 31: Capping Monitoring Condition

Effective between the dates of 06/10/2013 and 06/09/2018

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:

40 CFR 52.21

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.

Item 31.6:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00004
Process: 008

Emission Point: 00004
Emission Source: GT004

Emission Unit: U-00004
Process: 008

Emission Point: 00004
Emission Source: GTC04

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00006
Process: 013

Emission Point: 00006
Emission Source: GT006

Emission Unit: U-00006
Process: 013

Emission Point: 00006
Emission Source: GTC06

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

Item 31.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

Maximum total operating hours on distillate oil (# 2 fuel oil) at minimum load (70 %) for Processes 008 & 013 shall not exceed 2,160 hours/year after conducting the stack test. Processes 8 & 013 is the firing of distillate oil (# 2 fuel oil) in the two combined Siemens Model 400-GT combustion turbines (Emission Sources GT004 & GT006) with maximum heat input rating of 109.5 MM Btu/hr each at 70 % load. The maximum operating hours for both combustion turbines at 70 % load (except during start-up and shut-down) is 2,160 hours/year on # 2 fuel oil, after conducting the stack test. Stack test was performed on 5-4-2010. PM-10/Particulates emission test is limited to 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) or less on # 2 fuel oil at 70 % load.

The maximum heat input rating of the two Siemens combustion turbines (Emission Sources GT004 & GT006) at full load (100%) is 138.5 MM Btu/hr each, and the minimum heat input rating of the same tow combustion turbines at low load (70%) is 91.4 MM Btu/hr each.

Work Practice Type: HOURS PER YEAR OPERATION

Parameter Monitored: NUMBER 2 OIL

Upper Permit Limit: 2160 hours per year

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 33: Capping Monitoring Condition
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR Subpart 201-7

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 33.1:

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 33.2:

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

Item 33.3:

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 33.4:

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 33.5:

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 33.6:

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

Emission Unit: U-00004
Process: 011

Emission Point: 00004
Emission Source: GTC04

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GTC06

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

Item 33.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Description:

The total combined natural gas consumption for Processes 011 & 016, which are the firing of natural gas in the two Forney Model 5156-IST duct burners (Emission Control GTC04 & GTC06; respectively) associated with the two combustion turbines (Emission Sources GT004 & GT006; respectively), the total fuel consumption for both duct burners is limited to 320 MMCF/year. The PM-10/Particulates emissions is limited to 0.01 lb/MM Btu before and after the stack test.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: NATURAL GAS

Upper Permit Limit: 320 million cubic feet per year

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 1-3: Facility Permissible Emissions

Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 201-7.1

Item 2-3.1:

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 (From Mod 2) PTE: 488,555 pounds
per year

Name: OXIDES OF NITROGEN

Condition 1-4: Capping Monitoring Condition

Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 201-7.1

Item 1-4.1:

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

6 NYCRR Subpart 231-2

Item 1-4.2:

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 1-4.3:

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

Item 1-4.4:

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

Item 1-4.5:

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

Item 1-4.6:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Regulated Contaminant(s):

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

Item 1-4.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The facility will operate the 1500 KW generator/engine (Emission Source ENG01) as a "peak shaving unit" in the CDRP with a cap operational limit of 1,055 hours annually. Emission Source GEN01 is a MTU Deteroit Diesel Model 12V400 G43 4 cycle unit rated at 1500 KW (2,000 bhp) capable of firing #2 fuel oil. The total displacement of the engine is 57.2 liters for 12 cylinders. Therefore, the displacement per cylinder is 4.77 liters and the engine is rated at 1800 rpm. The

Standard Feature - EPA Tier 2 Certified (40 CFR Part 89) - Tier 2 Non-road Diesel Emission Standards for engines greater than 560 KW (750 Hp) power rating and has the following air emissions ratings:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Contaminant	Grams/KW-hr	grams / bhp-hr
CO	3.5	
2.6		
HC	-	
-		
NMHC + NOx	6.4	
4.8		
NOx	-	
-		
PM	0.2	
0.15		

The facility operates a stationary RICE (Emission Source GEN01 in Emission Unit U-00007) at an area source of HAP emissions, it is therefore applicable to the MACT requirements of Subpart ZZZZ.

The facility shall keep a list of the regulations applicable to this engine, location of the engine and a list of the hours of operation; updated semi-annually. The two EPA NSPS regulations applicable to the peak shaving stationary RICE rated greater than 500 brake Hp are 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. Subpart IIII, 40 CFR 60.4204 (non-emergency engines), stipulates Tier 2 emission rates for 2007 model and later engines with displacement less than 30 liters per cylinder. According to 40 CFR 60.6590, the installation of the engine is new because construction commenced after June 12, 2006; and meets the requirements of Subpart ZZZZ by meeting the requirements of Subpart IIII. Also, stack testing will be required. Other Subpart ZZZZ related maintenance requirements will be performed (oil change, filters, tune-up, etc.)

The NEI (Net emission Increase) for NOx = PEP + ERCs for Combustion Gas Turbines EU: U-0004 & U-0006 that began operating in January, 2010.

$$\begin{aligned}\text{NOx} &= 14.03 \text{ tpy} + 10.87 \text{ tpy} \\ &= 24.9 \text{ tpy}\end{aligned}$$

The PEP (Project Emission Potential) is associated with 1,055 hours of operation per year at Tier 2 emission level. Since the NEI for NOx is 24.9 tpy, which is < 25

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



tpy, therefore the modification is not subject to New Source Review (NSR).

The PTEs for the emission units are based upon specific limitations specified in the noted permit conditions.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 1055 hours

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2015.

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

Condition 34: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 202-1.2

Item 34.1:

The Compliance Certification activity will be performed for the Facility.

Item 34.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

If a stack test is required, notify the Commissioner of the stack test date and submit testing protocol and procedures for approval at least 30 days prior to the scheduled test date.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 35: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 202-1.3

Item 35.1:

The Compliance Certification activity will be performed for the Facility.

Item 35.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

If a stack test is performed, submit the stack test

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



results within 60 days of test.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 36: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR Subpart 202-2

Item 36.1:

The Compliance Certification activity will be performed for the Facility.

Item 36.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Submit annual emission statement to NYSDEC by April 15
for previous year's operation. Maintain records for five
years.

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 105 days after the reporting period.

The initial report is due 7/14/2014.

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

Condition 37: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 202-2.1

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:

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. The emission statements can also be
submitted electronically to <https://www.dec.ny.gov/>

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Reports due by April 15th for previous calendar year

Condition 38: Air pollution prohibited
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 211.1

Item 38.1:

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 39: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

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: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Owners and/or operators of commercial, industrial, or residential emission sources that fire number two 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: NUMBER 2 HEATING OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.0015 percent by weight

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 40: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

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: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Owners and/or operators of a stationary combustion installation that fires distillate oil other than number two 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 41: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 41.1:

The Compliance Certification activity will be performed for the Facility.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 41.2:

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 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 42: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 225-1.6

Item 42.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 42.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Provide semi-annual reports to NYSDEC on fuel analysis, quantity of fuel received, daily amount of fuel burned, and results of any stack sampling, stack monitoring, or

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



any procedures required to assure compliance with 6 NYCRR 225-1. The facility shall not use distillate fuel oil with greater than 15 ppm by weight sulfur. Fuel supplier shall provide certification that sulfur is less than 15 ppm for all fuel deliveries.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 15 parts per million by weight
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 43: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 225-1.6

Item 43.1:

The Compliance Certification activity will be performed for the Facility.

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

Item 43.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

An owner or operator of a facility which purchases and fires coal and/or oil shall submit reports to the commissioner containing fuel analysis data, information on the quantity of the fuel received, burned, and results of any stack sampling, stack monitoring and any other procedures to ensure compliance with the provisions of 6 NYCRR Part 225-1. All records shall be available for a minimum of three years.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 44: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 227-1.3

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 44.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 44.2:

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 utilizing a continuous opacity monitor (COM).

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 7/30/2013.

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

Condition 2-7: Compliance Certification

Effective between the dates of 06/07/2016 and 06/09/2018

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

Item 2-7.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001

Process: 002

Emission Point: 00001

Emission Source: 00001

Emission Unit: U-00001

Process: 002

Emission Point: 00001

Emission Source: 00010

Emission Unit: U-00001

Process: 017

Emission Point: 00001

Emission Source: 00001

Emission Unit: U-00001

Process: 017

Emission Point: 00001

Emission Source: 00010

Regulated Contaminant(s):

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

Item 2-7.2:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Continuous emission monitoring (CEM) of NO_x emission for the 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler (Emission Source 00001) in Emission Unit U-00001. This boiler operates on natural gas (Process 002) and ULSD (Process 017). The ULSD is the ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight. The NO_x emissions may not exceed 0.15 lbs/MM Btu. The averaging method to be used is the 24 hour average and it is to be calculated on a daily basis.

The NO_x RACT for this 371 MM btu/hr Riley Stoker Corp Low Pressure very large boiler (> 250 MM Btu/hr) operating on gas/ULSD (Process 002/017) is 0.15 lbs/MM Btu on or after July 1, 2014.

The owner or operator shall install, calibrate, maintain, and operate a CEMS for the monitoring of NO_x in accordance with the requirements of this subpart.

Owners or operators required to use 40 CFR Part 75 monitoring reference methods are required to do so. Any other owners or operators may use either 40 CFR Part 60 or 40 CFR Part 75 monitoring reference methods.

Manufacturer Name/Model Number: CEMS - Siemens 600 NOxmat

Upper Permit Limit: 0.15 pounds per million Btus

Reference Test Method: METHOD 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 24 HOUR DAILY AVERAGE (ARITHMETIC MEAN)

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2016.

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

Condition 2-8: Compliance Certification
Effective between the dates of 06/07/2016 and 06/09/2018

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

Item 2-8.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPB02

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPC02

Emission Unit: U-00002
Process: 040

Emission Point: 00002
Emission Source: HPB02

Emission Unit: U-00002
Process: 040

Emission Point: 00002
Emission Source: HPC02

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

Item 2-8.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Continuous emission monitoring (CEM) of NO_x emission for the 414 MM Btu/hr Victory Energy High Pressure Boiler (Emission Source HPB02) in Emission Unit U-00002. This boiler operates on natural gas (Process 040) and ULSD (Process 030). The ULSD is the ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight. The NO_x emissions may not exceed 0.15 lbs/MM Btu. The averaging method to be used is the 24 hour average and it is to be calculated on a daily basis.

The NO_x RACT for this 414 MM btu/hr Victory Energy High Pressure very large boiler (> 250 MM Btu/hr) operating on gas/ULSD oil (Process 040/030) is 0.15 lbs/MM Btu on or after July 1, 2014.

The owner or operator shall install, calibrate, maintain, and operate a CEMS for the monitoring of NO_x in accordance with the requirements of this subpart.

Owners or operators required to use 40 CFR Part 75 monitoring reference methods are required to do so. Any other owners or operators may use either 40 CFR Part 60 or 40 CFR Part 75 monitoring reference methods.

Manufacturer Name/Model Number: CEMS - Siemens 600 NOxmat

Upper Permit Limit: 0.15 pounds per million Btus

Reference Test Method: METHOD 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 24 HOUR DAILY AVERAGE (ARITHMETIC MEAN)

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2016.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 47: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 47.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001
Process: 001

Emission Point: 00001
Emission Source: 00001

Emission Unit: U-00001
Process: 002

Emission Point: 00001
Emission Source: 00001

Emission Unit: U-00001
Process: 017

Emission Point: 00001
Emission Source: 00001

Regulated Contaminant(s):

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

Item 47.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

This condition applies to natural gas/oil fired very large boilers. The owner or operator shall install, calibrate, maintain, and operate a CEMS for the monitoring of NO_x in accordance with the requirements of this subpart.

Compliance with the emission limit will be based on a 24-hour heat input weighted average from May 1st through September 30th. Compliance with the emission limit will be based on a 30-day rolling heat input weighted average from October 1st through April 30th.

Owners or operators required to use 40 CFR Part 75 monitoring reference methods are required to do so. Any other owners or operators may use either 40 CFR Part 60 or 40 CFR Part 75 monitoring reference methods.

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

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.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



For compliance with 6 NYCRR Part 227-2.4(a)(1)(ii), NOx RACT for very large boilers, the facility was required to submit a compliance plan for achieving post July 1, 2014 presumptive NOx RACT. The facility submitted its NOx RACT compliance plan in a letter to the Department Region 2 dated December 28, 2011.

Emission Source 00001 in Emission Unit U-00001: The compliance plan is to upgrade the burners of this very large boiler and switch from #6 fuel oil to #2 fuel oil with FGR to attain the post July 1, 2014 presumptive NOx RACT limit for dual fuel very large boilers, 0.15 lbs NOx per million Btu heat input. In accordance with Part 227-2.3, compliance with the post July 1, 2014 presumptive NOx RACT will occur on January 1, 2015.

The facility submitted a supplemental NOx RACT letter in March 2012 providing the results of testing on boiler #1 (Emission Source 00001 in Emission Unit U-00001) concerning fuel switching and burner upgrade to reaffirm its compliance plan.

Manufacturer Name/Model Number: NOx Analyzer
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.15 pounds per million Btus
Reference Test Method: See Monitoring Description
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 49: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 49.1:

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

Emission Unit: U-00003
Process: 005

Emission Point: 00003
Emission Source: HPB03

Emission Unit: U-00003
Process: 005

Emission Point: 00003
Emission Source: HPC03

Emission Unit: U-00003
Process: 006

Emission Point: 00003
Emission Source: HPB03

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00003
Process: 006

Emission Point: 00003
Emission Source: HPC03

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

Item 49.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

This condition applies to natural gas/oil fired large boilers. The owner or operator shall install, calibrate, maintain, and operate a CEMS for the monitoring of NO_x in accordance with the requirements of this subpart.

Compliance with the emission limit will be based on a 24-hour heat input weighted average from May 1st through September 30th. Compliance with the emission limit will be based on a 30-day rolling heat input weighted average from October 1st through April 30th.

Owners or operators required to use 40 CFR Part 75 monitoring reference methods are required to do so. Any other owners or operators may use either 40 CFR Part 60 or 40 CFR Part 75 monitoring reference methods.

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

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.

For compliance with 6 NYCRR Part 227-2, NO_x RACT, the facility was required to submit a compliance plan for achieving post July 1, 2014 presumptive NO_x RACT. The facility submitted its NO_x RACT compliance plan in a letter to the Department Region 2 dated December 28, 2011.

Emission Source 00003 in Emission Unit U-00003: This high pressure large boiler, capable of firing natural gas or distillate #2 fuel oil was installed in 2007 equipped with a low NO_x burner and FGR for NO_x control. Emission tests previously submitted to the Department confirm that this boiler is capable of sustaining presumptive NO_x RACT emission limit after July 1, 2014.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Manufacturer Name/Model Number: NOx Analyzer
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.15 pounds per million Btus
Reference Test Method: See monitoring description
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD - SEE MONITORING
DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 1-5: Compliance Certification
Effective between the dates of 05/01/2014 and 06/09/2018

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

Item 1-5.1:

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

Emission Unit: U-00007	Emission Point: 00007
Process: GEN	Emission Source: GEN01

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

Item 1-5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Riverbay Corp proposes to convert the "black start" emergency diesel generator to a "peak shaving unit." This engine is identified as Emission Source GEN01 in Emission Unit U-00007, and fires only diesel fuel (Process GEN). The engine/generator exhausts to the atmosphere through its own stack identified as Emission Point 00007.

This engine will participate in the CDRP (electric grid or peak shaving program) for a maximum of 1,055 hours per year as per Part 231 NEI analysis (14.03 NOx tpy). This engine/generator is classified as a compression ignition (CI) 4-stroke lean-burn stationary reciprocating internal combustion engine - CI 4S LB RICE. Based upon the nameplate data, the model year for the engine is 2008. This engine is rated for Tier 2 emissions of no-road dies engines. Tier 2 has the following air emission ratings:

Contaminant	grams/KW-hr	grams/bhp-hr
-------------	-------------	--------------

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



CO	3.5
2.6	
HC	-
-	
NMHC + NOx	6.4
4.8	
NOx	-
-	
PM	0.2
0.15	

The manufacturer's specification sheets includes "nominal emission rates" for this engine, specifically NOx at 5.19 grams/bhp-hr (7.0 grams per kW-hr). This nominal emission rate is used as the base line emission for the NOx RACT analysis.

The NYSDEC's new NOx RACT rule that became effective July 8, 2010 states that for a Stationary internal combustion engines, 6 NYCRR 227-2.4 (f) control requirements, that the [resumptive NOx emission rate limit is 2.3 grams per brake horsepower-hour for engines with a maximum mechanical output rating equal to or greater than 200 brake horsepower in a severe ozone nonattainment area. 6 NYCRR 227-2.5 (c), Compliance options, allows demonstration that the presumptive emission limit is not economically or technically feasible and a request for a higher specific limit.

The NOx emission reduction level required to attain the presumptive NOx RACT limit from the manufacturer's nominal emission rate is 56%.

The base technology for NOx control is the manufacturer's NOx emission Tier 2 rating. A comparative NOx control technology that has been applied to diesel engine is post combustion selective catalytic reduction (SCR) technology that involves either 19% ammonia solution or urea injection into the flue gas stream when the flue gas is in a certain temperature range.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 1-7: Compliance Certification
Effective between the dates of 05/01/2014 and 06/09/2018

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

Item 1-7.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Regulated Contaminant(s):

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

Item 1-7.2:

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 NOx 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 MTU Detroit Diesel 1500 KW stationary internal combustion engines (Emission Source ENG01) in Emission Unit 2-00000, is 1500 KW and is 4 cycle, lean burn and 2008 Model. This engine fires # 2 fuel oil (Process GEN) only, and is lean burn internal combustion engines with compression ignition source.

Engine Maintenance Compliance:

Riverbay 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.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



4. Every 24,000 hours: Engine top and bottom overhaul.

Riverbay maintains detailed operating records of pressures, temperatures, greasing, oiling, etc.

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: Engine 01 - MTU Detroit Diesel 1500 KW / 12V4000 G43 (T1238A34) / 4 cycle, lean burn and 2008 Model.

Manufacturer Name/Model Number: MTU Detroit Diesel 1500 KW / 12V4000 G43 (T1238A34) / 4 cycle

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2015.

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

Condition 1-8: Compliance Certification
Effective between the dates of 05/01/2014 and 06/09/2018

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

Item 1-8.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00007
Process: GEN

Emission Point: 00007
Emission Source: GEN01

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

Item 1-8.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 October 7, 2013, the facility has submitted a NOx RACT variance analysis based on Air-Guide 20 (i.e. when emitting NOx above 2.3 gm/bhp-hr, but below 9.0 gm/bhp-hr) to be approved for a Title V permit to operate the 1500 KW engine (Emission Source ENG01) at the EPA Tier 2 certified NMHC + NOx emissions of 4.8 grams/bhp-hr for ENG01 (i.e. when emitting NOx above 2.3 gm/bhp-hr, but below 9.0 gm/bhp-hr). The facility is requesting a variance on the engine based on the lack of economic feasibility of \$19,696 per ton of NOx, which is much higher than the threshold of \$5,000 per ton for NOx RACT. The variance is based on the EPA Tier 2 certified NOx emissions of 5.19 grams/bhp-hr (7.0 grams/kW-hr) for ENG01.

Technologies that could meet the new NOx limits would require significant capital investment and would be counter-effective and counter-productive in the long term. The analysis concluded that no NOx control technologies were economically feasible for this engine/generator at the facility. This report was submitted to comply with a variance request to the NOx emission limits stated above pursuant to Part 621, Uniform Procedures act.

The facility 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.

Emission Source GEN01 is a MTU Deteroit Diesel Model 12V400 G43 4 cycle unit rated at 1500 KW (2,000 bhp)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



capable of firing #2 fuel oil. The total displacement of the engine is 57.2 liters for 12 cylinders. Therefore, the displacement per cylinder is 4.77 liters and the engine is rated at 1800 rpm. The engine is EPA Tier 2 certified NMHC + NOx emissions of 4.8 grams/bhp-hr for ENG01.

The participation of engine ENG01 in the "peak load shaving" program by capping its total Oxides of Nitrogen (NOx) emissions to under 24.9 tpy. The permit application included a NOx RACT variance analysis based on Air Guide 20 to be approved for a Title V permit to operate this engine at the stack tested rates (i.e. when emitting NOx above 2.3 gm/bhp-hr but below 9.0 gm/bhp-hr). The facility is requesting a variance on the ENG01 engine (identified as Emission Sources ENG01). The NOx variance is based on the EPA Tier 2 certified NMHC + NOx emissions of 4.8 grams/bhp-hr for ENG01.

The facility has submitted a NOx RACT Variance application with this modification due to the lack of economic feasibility of \$19,696 per ton of NOx, which is much higher than the threshold of \$5,000 per ton for NOx RACT.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 5.19 grams per brake horsepower-hour

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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 10/30/2014.

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

Condition 2-9: Compliance Certification

Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 2-9.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001
Process: 002

Emission Point: 00001
Emission Source: 00001

Emission Unit: U-00001
Process: 002

Emission Point: 00001
Emission Source: 00010

Emission Unit: U-00001

Emission Point: 00001

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Process: 017

Emission Source: 00001

Emission Unit: U-00001

Emission Point: 00001

Process: 017

Emission Source: 00010

Regulated Contaminant(s):

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

Item 2-9.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Riverbay CORP-CO-OP CITY is required to maintain and operate CEM System for NO_x emission. The CEM System is required to meet the requirements of 40 CFR Appendices B and F. The averaging method to be used is the 24 hour daily average (arithmetic mean) and it is to be calculated on a daily basis.

(b) CEMS Requirements

(1) The owner or operator of a source subject to paragraph (a)(1), (2), or (5) of this section that is obligated to submit a compliance plan required under section 227-2.3(a) and (b) of this Subpart must submit for department approval:

(i) a preliminary CEMS plan as part of the compliance plan if it has a CEMS in place, or are in the process of procuring or installing CEMS;

(ii) a preliminary CEMS plan at least 180 days prior to equipment installation. The department will notify the owner or operator of the acceptability of the plan, at least 60 days prior to equipment installation if it is not covered under subparagraph (i) of this paragraph; or

(iii) a proposed equivalent monitoring plan.

Compliance with the NO_x standard for very large boilers burning natural gas and fuel oil will be determined using a Continuous Emissions Monitor (CEM) in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

This condition applies to the 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler (Emission Source 00001) in Emission Unit U-00001. The NO_x RACT for large oil/gas (Process 017/002) boilers is a limit of 0.15 pounds per million Btu per hour.



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

The owner or operator shall install, calibrate, maintain, and operate a CEMS for the monitoring of NO_x in accordance with the requirements of this subpart.

Owners or operators required to use 40 CFR Part 75 monitoring reference methods are required to do so. Any other owners or operators may use either 40 CFR Part 60 or 40 CFR Part 75 monitoring reference methods.

Manufacturer Name/Model Number: CEMS - Siemens 600 NO_x MAT

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.15 pounds per million Btus

Reference Test Method: Appendices B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2016.

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

Condition 2-10: Compliance Certification
Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 2-10.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPB02

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPC02

Emission Unit: U-00002
Process: 040

Emission Point: 00002
Emission Source: HPB02

Emission Unit: U-00002
Process: 040

Emission Point: 00002
Emission Source: HPC02

Regulated Contaminant(s):

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

Item 2-10.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Riverbay CORP-CO-OP CITY is required to maintain and operate CEM System for NO_x emission. The CEM System is

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



required to meet the requirements of 40 CFR Appendices B and F. The averaging method to be used is the 24 hour daily average (arithmetic mean) and it is to be calculated on a daily basis.

(b) CEMS Requirements

(1) The owner or operator of a source subject to paragraph (a)(1), (2), or (5) of this section that is obligated to submit a compliance plan required under section 227-2.3(a) and (b) of this Subpart must submit for department approval:

(i) a preliminary CEMS plan as part of the compliance plan if it has a CEMS in place, or are in the process of procuring or installing CEMS;

(ii) a preliminary CEMS plan at least 180 days prior to equipment installation. The department will notify the owner or operator of the acceptability of the plan, at least 60 days prior to equipment installation if it is not covered under subparagraph (i) of this paragraph; or

(iii) a proposed equivalent monitoring plan.

Compliance with the NO_x standard for very large boilers burning natural gas and fuel oil will be determined using a Continuous Emissions Monitor (CEM) in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

This condition applies to the 414 MM Btu/hr Victory Energy High Pressure Boiler (Emission Source HPB02) in Emission Unit U-00002. This boiler operates on natural gas (Process 040) and ULSD (Process 030). The ULSD is the ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight. The NO_x emissions may not exceed 0.15 lbs/MM Btu. The NO_x RACT for very large oil/gas (Process 030/040) boilers is a limit of 0.15 pounds per million Btu per hour.

The owner or operator shall install, calibrate, maintain, and operate a CEMS for the monitoring of NO_x in accordance with the requirements of this subpart.

Owners or operators required to use 40 CFR Part 75 monitoring reference methods are required to do so. Any other owners or operators may use either 40 CFR Part 60 or 40 CFR Part 75 monitoring reference methods.

Manufacturer Name/Model Number: CEMS - Siemens 600 NO_x MAT
Parameter Monitored: OXIDES OF NITROGEN

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Upper Permit Limit: 0.15 pounds per million Btus
Reference Test Method: Appendices B & F
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST
METHOD INDICATED
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2016.
Subsequent reports are due every 3 calendar month(s).

Condition 2-11: Compliance Certification
Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 2-11.1:

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

Emission Unit: U-00003	Emission Point: 00003
Process: 005	Emission Source: HPB03

Emission Unit: U-00003	Emission Point: 00003
Process: 005	Emission Source: HPC03

Emission Unit: U-00003	Emission Point: 00003
Process: 006	Emission Source: HPB03

Emission Unit: U-00003	Emission Point: 00003
Process: 006	Emission Source: HPC03

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

Item 2-11.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Riverbay CORP-CO-OP CITY is required to maintain and operate CEM System for NOx emission. The CEM System is required to meet the requirements of 40 CFR Appendices B and F. The averaging method to be used is the 24 hour daily average (arithmetic mean) and it is to be calculated on a daily basis.

(b) CEMS Requirements

(1) The owner or operator of a source subject to paragraph (a)(1), (2), or (5) of this section that is obligated to submit a compliance plan required under section 227-2.3(a) and (b) of this Subpart must submit for department

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



approval:

(i) a preliminary CEMS plan as part of the compliance plan if it has a CEMS in place, or are in the process of procuring or installing CEMS;

(ii) a preliminary CEMS plan at least 180 days prior to equipment installation. The department will notify the owner or operator of the acceptability of the plan, at least 60 days prior to equipment installation if it is not covered under subparagraph (i) of this paragraph; or

(iii) a proposed equivalent monitoring plan.

Compliance with the NO_x standard for large boilers burning natural gas and fuel oil will be determined using a Continuous Emissions Monitor (CEM) in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

This condition applies to the 212 MM Btu/hr Rentech Model D Watertube boiler (Emission Source HPB03) in Emission unit U-00003. This boiler operates on natural gas (Process 006) and ULSD (Process 005). The ULSD is the ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight. The NO_x RACT for large gas/oil (Process 006/005) boilers is a limit of 0.15 pounds per million Btu per hour on or after July 1, 2014.

The NO_x RACT for this 212 MM Btu/hr Rentech Model D Watertube large boiler (> 100 < or = 250 MM Btu/hr) operating on gas/ULSD oil (Process 006/005) is 0.15 lbs/MM Btu on or after July 1, 2014. 371 MM Btu/hr Riley Stoker Corp Low Pressure Boiler (Emission Source 00001) in Emission Unit U-00001. The NO_x RACT for large oil/gas (Process 017/002) boilers is a limit of 0.15 pounds per million Btu per hour.

The owner or operator shall install, calibrate, maintain, and operate a CEMS for the monitoring of NO_x in accordance with the requirements of this subpart.

Owners or operators required to use 40 CFR Part 75 monitoring reference methods are required to do so. Any other owners or operators may use either 40 CFR Part 60 or 40 CFR Part 75 monitoring reference methods.

Manufacturer Name/Model Number: CEMS - Siemens 600 NO_x MAT

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.15 pounds per million Btus

Reference Test Method: Appendices B & F

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Frequency: CONTINUOUS

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST
METHOD INDICATED

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2016.

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

Condition 1-9: Compliance Certification

Effective between the dates of 05/01/2014 and 06/09/2018

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

Item 1-9.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Regulated Contaminant(s):

CAS No: 000000-00-0 PARTICULATES

Item 1-9.2:

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.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The MTU Detroit Diesel 1500 KW / 12V4000 G43 (T1238A34) / 4 cycle reciprocating diesel engine generator (Emission Source ENG01) will be delegated to participate in the "peak shaving" program or any other demand response program, and will operate no more than 1,055 hours annually.

Manufacturer Name/Model Number: MTU Detroit Diesel 1500 KW / 12V4000 G43 (T1238A34) / 4 cycle

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 - SEE MONITORING

DESCRIPTION

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 2-12: Compliance Certification

Effective between the dates of 06/07/2016 and 06/09/2018

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

Item 2-12.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00006

Process: 012

Emission Point: 00006

Emission Source: GT006

Emission Unit: U-00006

Process: 012

Emission Point: 00006

Emission Source: GTC06

Emission Unit: U-00006

Process: 013

Emission Point: 00006

Emission Source: GT006

Emission Unit: U-00006

Process: 013

Emission Point: 00006

Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 000000-00-0 PARTICULATES

Item 2-12.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Compliance with the Particulate emissions from the combustion turbine (Emission Sources/Controls GT006 & GTC06) when firing # 2 fuel oil (Processes 012 & 013) will be demonstrated to be less than 0.10 lb/MM Btu (as required by NY State SIP) with a stack compliance test in

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



accordance with 40 CFR Part 60 EPA Method 5.

This condition applies to the 131 MM Btu/hr Siemens Model GT-400 Combustion Gas Turbine (Emission Source GT006) and its 60.7 MM Btu/hr Duct Burner (Emission Control GTC06) in Emission Unit U-00006 during its operation on ULSD (Processes 012 & 013). The ULSD is the ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight.

Particulate emission limit for stationary combustion installation firing oil. The owner or operator shall complete the following once per term of this permit:

1. Submit to the Department an acceptable protocol for the testing of particulate emission 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. All records shall be maintained at the facility for a minimum of five years.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 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 2-13: Compliance Certification

Effective between the dates of 06/07/2016 and 06/09/2018

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

Item 2-13.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00004
Process: 007

Emission Point: 00004
Emission Source: GT004

Emission Unit: U-00004
Process: 007

Emission Point: 00004
Emission Source: GTC04

Emission Unit: U-00004
Process: 008

Emission Point: 00004
Emission Source: GT004

Emission Unit: U-00004

Emission Point: 00004

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Process: 008

Emission Source: GTC04

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 2-13.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Compliance with the Particulate emissions from the combustion turbine (Emission Sources/Controls GT004 & GTC04) when firing # 2 fuel oil (Processes 007 & 008) will be demonstrated to be less than 0.10 lb/MM Btu (as required by NY State SIP) with a stack compliance test in accordance with 40 CFR Part 60 EPA Method 5.

This condition applies to the 131 MM Btu/hr Siemens Model GT-400 Combustion Gas Turbine (Emission Source GT004) and its 60.7 MM Btu/hr Duct Burner (Emission Control GTC04) in Emission Unit U-00004 during its operation on ULSD (Processes 007 & 008). The ULSD is the ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight.

Particulate emission limit for stationary combustion installation firing oil. The owner or operator shall complete the following once per term of this permit:

1. Submit to the Department an acceptable protocol for the testing of particulate emission 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. All records shall be maintained at the facility for a minimum of five years.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 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 2-14: Compliance Certification

Effective between the dates of 06/07/2016 and 06/09/2018

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 2-14.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPB02

Emission Unit: U-00002
Process: 030

Emission Point: 00002
Emission Source: HPC02

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

Item 2-14.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to the 414 MM Btu/hr Victory Energy High Pressure Boiler (Emission Source HPB02) in Emission Unit U-00002 during its operation on ULSD (Process 030). The ULSD is the ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight.

Particulate emission limit for stationary combustion installation firing oil. The owner or operator shall complete the following once per term of this permit:

1. Submit to the Department an acceptable protocol for the testing of particulate emission 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. All records shall be maintained at the facility for a minimum of five years.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: METHOD 5

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 30 days after the reporting period.

The initial report is due 10/30/2016.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 2-15: Compliance Certification

Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.43b(f), NSPS Subpart Db

Item 2-15.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00003

Process: 005

Emission Point: 00003

Emission Source: HPB03

Emission Unit: U-00003

Process: 005

Emission Point: 00003

Emission Source: HPC03

Regulated Contaminant(s):

CAS No: 000000-00-0 PARTICULATES

Item 2-15.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The owner or operator shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6 minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

The facility is exempt from the opacity limits under 40 CFR 60.43b(h)(5) by burning natural gas and ULSD (ultra low sulfur distillate oil #2 of 15 ppm or 0.0015 % maximum sulfur by weight) fuel oil. NYSDEC regulations limit discharge into the atmosphere gases that exhibit greater than 20% opacity for a 6-minute average. A Continuous Opacity Monitor (COMS) will be used to monitor opacity.

Manufacturer Name/Model Number: COMS - Durag Model 290

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Continuous Opacity Monitor

Monitoring Frequency: CONTINUOUS

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 10/30/2016.

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

Condition 50: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 50.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00006
Process: 014

Emission Point: 00006
Emission Source: GT006

Emission Unit: U-00006
Process: 014

Emission Point: 00006
Emission Source: GTC06

Emission Unit: U-00006
Process: 015

Emission Point: 00006
Emission Source: GT006

Emission Unit: U-00006
Process: 015

Emission Point: 00006
Emission Source: GTC06

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GT006

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 50.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Compliance with the Sulfur Dioxide emission limit for the
duct burner (Emission Control GTC06) will be by
maintaining records of the natural gas consumption.

$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$
lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

Sulfur Dioxide emission limit = $(0.0301 \text{ lbs S/Million Btu})$
 $\times (2 \text{ lbs Sulfur Dioxide} / 1 \text{ lb Sulfur}) = 0.060 \text{ lbs}$
Sulfur Dioxide/million Btu

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Upper Permit Limit: 20 grains per 100 dscf
Reference Test Method: 40 CFR 60.334(h)
Monitoring Frequency: MONTHLY
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 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 51: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 51.1:

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

Emission Unit: U-00004 Process: 009	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: 009	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00004 Process: 011	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: 011	Emission Point: 00004 Emission Source: GTC04
Emission Unit: U-00004 Process: P10	Emission Point: 00004 Emission Source: GT004
Emission Unit: U-00004 Process: P10	Emission Point: 00004 Emission Source: GTC04

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

Item 51.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Compliance with the Sulfur Dioxide emission limit for the
duct burner (Emission Control GTC04) will be by
maintaining records of the natural gas consumption.

$$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$$

lbs S per SCF gas

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

Sulfur Dioxide emission limit = $(0.0301 \text{ lbs S/Million Btu})$
 $\times (2 \text{ lbs Sulfur Dioxide} / 1 \text{ lb Sulfur}) = 0.060 \text{ lbs}$
Sulfur Dioxide/million Btu

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 20 grains per 100 dscf

Reference Test Method: 40 CFR 60.334(h)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 1-22: Applicability

Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement: 40CFR 60, NSPS Subpart III

Item 1-22.1:

Facilities that have stationary compression ignition internal combustion engines must comply with applicable portions of 40 CFR 60 Subpart III.

Condition 1-23: Compliance Certification

Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement: 40CFR 60, NSPS Subpart III

Item 1-23.1:

The Compliance Certification activity will be performed for the Facility.

Item 1-23.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The 1,500 KW (2,000 bhp) engine (Emission Source ENG01 in Emission Unit U-00007) is classified as a compression ignition (CI) 4-stroke lean-burn stationary reciprocating internal combustion engine - CI 4S LB RICE. The total displacement of the engine is 57.2 liters for 12

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



cylinders. Therefore, the displacement per cylinder is 4.77 liters and the engine is rated at 1800 rpm. Based upon the engine nameplate data, the model year for the engine is 2008. The engine is rated for Tier 2 emissions of non-road dies engines. Tier 2 has the following air emissions ratings:

Contaminant	grams/KW-hr	grams/bhp-hr
-------------	-------------	--------------

CO	3.5	
2.6		

HC	-	
-		

NMHC + NO _x	6.4	
4.8		

NO _x	-	
-		

PM	0.2	
0.15		

The two EPA NSPS regulations applicable to Riverbay Corp's black-start engine are 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. Subpart IIII, Part 60.4204 (non-emergency engines), stipulates Tier 2 emission rates for 2007 model and later engines with displacement less than 30 liters per cylinders. Riverbay Corp is subject to Subpart ZZZZ as an "area source." According to Subpart 60.6590, the installation of the black start engine is new because construction commenced after June 12, 2006; and meets the requirements of Subpart ZZZZ by meeting the requirements of Subpart IIII.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2015.

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

Condition 52: Duration of emission standards for new stationary compression ignition IC engines
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 60.4206, NSPS Subpart IIII

Item 52.1:

Owners and operators of stationary combustion ignition internal combustion engine (CI ICE) must operate and maintain the stationary CI ICE that achieve the emission standards as required

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



in §§60.4204 and 60.4205 over the entire life of the engine.

**Condition 53: Stationary CI-IC Engines - Installation and importing
deadlines for engines produced in the previous model year
Effective between the dates of 06/10/2013 and 06/09/2018**

Applicable Federal Requirement: 40CFR 60.4208, NSPS Subpart IIII

Item 53.1:

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

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

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

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in 40 CFR 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import a stationary CI ICE with a displacement of less than 30 liters per cylinder that does not meet the applicable requirements specified in paragraphs (a) through (g) above after the dates specified in those paragraphs.

(i) The deadlines listed above do not apply to owners or operators of a stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 1-24: Compliance Certification

Effective between the dates of 05/01/2014 and 06/09/2018

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

Item 1-24.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 1-24.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 1-25: Compliance Certification

Effective between the dates of 05/01/2014 and 06/09/2018

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

Item 1-25.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 1-25.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The facility will operate the 1500 KW generator/engine (Emission Source ENG01 in Emission Unit U-00007) as a "peak shaving unit" in the CDRP with a cap operational limit of 1,055 hours annually.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



This non-emergency (peak shaving engine) will be used to provide power to the facility in the event of outside commercial power interruption or unreliability issues. This compression ignition (CI) engine diesel generator will be operated for a maximum of 1,055 hours in a year including for the purposes of maintenance checks and readiness testing.

1. Type of Fuel:

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

2. Operating Hours:

The Permittee shall operate this non-emergency engine (peak shaving engine) up to a maximum of 1,055 hours per year in the event of outside commercial power interruption or unreliability issues in addition to the hours of operation for the maintenance checks and readiness testing. The Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of this non-emergency internal combustion engines. Copies of such records shall be provided to NYSDEC upon request.

3. Monitoring, Reporting and Recordkeeping requirements:

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

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 1055 hours

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 12-MONTH TOTAL, ROLLED MONTHLY

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 54: General Provisions

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.4218, NSPS Subpart IIII

Item 54.1:

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

Condition 1-26: Engines at Area sources of HAP

Effective between the dates of 05/01/2014 and 06/09/2018

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Applicable Federal Requirement:40CFR 63, Subpart ZZZZ

Item 1-26.1:

Internal combustion engines, constructed or re-constructed on or after June 12, 2006, that meet the requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ meet the requirements of 40 CFR 63 Subpart ZZZZ.

Condition 1-27: Compliance Certification

Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement:40CFR 63, Subpart ZZZZ

Item 1-27.1:

The Compliance Certification activity will be performed for the Facility.

Item 1-27.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The 1,500 KW (2,000 bhp) engine (Emission Source ENG01 in Emission Unit U-00007) is classified as a compression ignition (CI) 4-stroke lean-burn stationary reciprocating internal combustion engine - CI 4S LB RICE. The total displacement of the engine is 57.2 liters for 12 cylinders. Therefore, the displacement per cylinder is 4.77 liters and the engine is rated at 1800 rpm. Based upon the engine nameplate data, the model year for the engine is 2008. The engine is rated for Tier 2 emissions of non-road dies engines. Tier 2 has the following air emissions ratings:

Contaminant	grams/KW-hr	grams/bhp-hr
CO	3.5	
2.6		
HC	-	
-		
NMHC + NOx	6.4	
4.8		
NOx	-	
-		
PM	0.2	
0.15		

The two EPA NSPS regulations applicable to Riverbay Corp's

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



black-start engine are 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. Subpart IIII, Part 60.4204 (non-emergency engines), stipulates Tier 2 emission rates for 2007 model and later engines with displacement less than 30 liters per cylinders. Riverbay Corp is subject to Subpart ZZZZ as an "area source." According to Subpart 60.6590, the installation of the black start engine is new because construction commenced after June 12, 2006; and meets the requirements of the MACT regulation Subpart ZZZZ by meeting the requirements of Subpart IIII.

Table 8 of 40 CFR 63 Subpart ZZZZ shows which parts of the General Provisions 40 CFR 63.1 through 40 CFR 63.15 apply to this facility. The facility is responsible for ensuring they comply with all General Provisions contained in Table 8.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2015.

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

Condition 1-28: Compliance Certification

Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement: 40CFR 63.6640(f), Subpart ZZZZ

Item 1-28.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 1-28.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility operates a stationary RICE (Emission Source GEN01 in Emission Unit U-00007) at an area source of HAP emissions, it is therefore applicable to the requirements of Subpart ZZZZ. Specifically, an existing stationary RICE with a site rating of greater than 500 brakes HP located at the site. This engine is rated at 1500 kW (2328 bhp). This engine participates in the CDRP program and falls under the definition of 6 NYCRR 201-6.5(c) - emergency defence provision and emergency generators that participate in the CDRP (Local Reliability program) as

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



defined under 40 CFR 63.6640(f)(2)(iii). Therefore, the 1,055 hours per year of operation limit for this engine as per Part 231 NEI analysis. Subpart ZZZZ requires CO reduction, 50 hours of the 1,055 hours may be used for testing and inspection purposes and the balance of the 1,055 hours may be used towards Local Reliability (CDRP) in exchange for monetary benefit.

The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that.

Under subpart ZZZZ, this engine/generator will need to meet all requirements for non-emergency engines. Riverbay will operate ENG01 in the CDRP (electric grid or peak shaving program) such that the total operating hours for this engine will not exceed the maximum operating hours of 1,055 per year as per Part 231 NEI analysis (14.03 NOx tpy).

The facility will operate this generator/engine in the CDRP (electric grid or peak shaving program) such that the total operating hours per engine will not exceed the maximum operating hours of 1,055 hrs/yr as per Part 231 NEI analysis. The 1055 hrs/yr limit will include the maintenance checks and readiness or routine testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized. Other Subpart ZZZZ related maintenance requirements will be performed (oil change, filters, tune-up, etc.).

The facility shall keep a list of the regulations applicable to this engine, location of the engine and a list of the hours of operation; updated semi-annually. Internal combustion engines, constructed or re-constructed on or after June 12, 2006, that meet the requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ meet the requirements of 40 CFR 63 Subpart ZZZZ. Other Subpart ZZZZ related maintenance requirements will be performed (oil change, filters, tune-up, etc.).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2015.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 55: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 72.9, Subpart A

Item 55.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00004

Emission Point: 00004

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 55.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

40 CFR Part 72.9 lists the requirements for permits, monitoring, SO₂ allowances, recordkeeping and reporting. Sulfur dioxide emissions will be calculated hourly based on fuel usage and sulfur content in accordance with 40 CFR 60 Subpart GG, 40 CFR 72, and 40 CFR 75.

The Riverbay gas turbines (Emission Source GT004 in Emission Unit U-00004 and Emission Source GT006 in Emission Unit U-00006) will be exempt from 40 CFR 72, as long as the combined two gas turbines are not an "affected unit" as defined under 40 CFR 72.6 (b) (4) (ii) by supplying "equal to or less than 219,000 MWe-hrs actual electrical output on an annual basis to any utility power distribution system for sale".

If the facility exceeds the limit of 219,000 megawatt hour electrical output, then the facility is required to continuously monitor the sulfur dioxide using 1-hour average and submit quarterly reports.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

Parameter Monitored: ELECTRICAL OUTPUT

Upper Permit Limit: 219,000 megawatt-hours per year

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 56: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 75.11(d), Subpart B

Item 56.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00004

Emission Point: 00004

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 56.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The Riverbay gas turbines will be exempt from 40 CFR 75, as long as the gas turbines are not an "affected unit" as defined under 40 CFR 72.6 (b) (4) (ii) by supplying "equal to or less than 219,000 MWe-hrs actual electrical output on an annual basis to any utility power distribution system for sale".

Permit limit is 219,000 Mwe-hr electrical output supplied to any utility. Otherwise, 40 CFR Part 75.11 applies and it lists the requirements for permits, monitoring, SO₂ allowances, recordkeeping and reporting. Sulfur dioxide emissions will be calculated hourly based on fuel usage and sulfur content in accordance with 40 CFR 60 Subpart GG, 40 CFR 72, and 40 CFR 75.

If the facility exceeds the limit of 219,000 megawatt hour electrical output, then the facility is required to keep records of the continuous monitoring of the sulfur dioxide using 1-hour average for submitting the required quarterly reports. Then, the facility will monitor SO₂ emissions in accordance with Appendix D of this Part. Sulfur dioxide emissions will be calculated hourly based on fuel usage and sulfur content in accordance with 40 CFR 60 Subpart GG, 40 CFR 72, and 40 CFR 75.

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

Condition 57: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 75.20, Subpart C

Item 57.1:

The Compliance Certification activity will be performed for the Facility.

Item 57.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Acid Precipitation: CEM operation and maintenance requirements - certification and recertification procedures:

Whenever the owner or operator makes a replacement, modification, or change in the certified continuous emission monitoring system or continuous opacity monitoring system (which includes the automated data acquisition and handling system, and, where applicable, the CO2 continuous emission monitoring system), that significantly affects the ability of the system to measure or record the SO2 concentration, volumetric gas flow, SO2 mass emissions, NOx emission rate, CO2 concentration, or opacity, or to meet the requirements of appendix B of this 40 CFR 75, the owner or operator shall recertify the continuous emission monitoring system, continuous opacity monitoring system, or component thereof according to the procedures in 40 CFR 75. Examples of changes which require recertification include: replacement of the analytical method, including the analyzer; change in location or orientation of the sampling probe or site; rebuilding of the analyzer or all monitoring system equipment; and replacement of an existing continuous emission monitoring system or continuous opacity monitoring system.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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

Condition 58: Emission Point Definition By Emission Unit

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR Subpart 201-6

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 58.1(From Mod 2):

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

Emission Unit: U-00001

Emission Point: 00001

Height (ft.): 138

Diameter (in.): 82

NYTMN (km.): 4525.023

NYTME (km.): 598.833

Building: PPLANT

Item 58.2(From Mod 2):

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

Emission Unit: U-00002

Emission Point: 00002

Height (ft.): 138

Diameter (in.): 82

NYTMN (km.): 4525.023

NYTME (km.): 598.833

Building: PPLANT

Item 58.3(From Mod 2):

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

Emission Unit: U-00003

Emission Point: 00003

Height (ft.): 138

Diameter (in.): 82

NYTMN (km.): 4525.023

NYTME (km.): 598.833

Building: PPLANT

Item 58.4(From Mod 2):

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

Emission Unit: U-00004

Emission Point: 00004

Height (ft.): 150

Length (in.): 92

Width (in.): 34

NYTMN (km.): 4525.023

NYTME (km.): 598.833

Building: PPLANT

Item 58.5(From Mod 2):

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

Emission Unit: U-00006

Emission Point: 00006

Height (ft.): 150

Length (in.): 92

Width (in.): 34

NYTMN (km.): 4525.023

NYTME (km.): 598.833

Building: PPLANT

Item 58.6(From Mod 1):

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

Emission Unit: U-00007

Emission Point: 00007

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Height (ft.): 16 Diameter (in.): 16
NYTMN (km.): 4525. NYTME (km.): 598.8

Condition 59: Process Definition By Emission Unit
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 59.1(From Mod 2):

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

Emission Unit: U-00001

Process: 002

Source Classification Code: 1-03-006-01

Process Description:

Process 002 is the firing of natural gas in the Low Pressure Boiler 00001 (Emission Source 00001) in Emission Unit U-00001. The emissions are exhausted through a stack identified as Emission Point 00001.

Boilers #1 & #2 (Emission Source 00001 in Emission Unit U-00001 and Emission Source HPB02 in Emission Unit U-00002) have a combined annual natural gas limit of 2,912 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 6.11 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler and the 414 MM Btu/hr Victory Energy high pressure boiler.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Emission Source/Control: 00001 - Combustion
Design Capacity: 371 million Btu per hour

Emission Source/Control: 00001 - Combustion
Design Capacity: 371 million Btu per hour

Emission Source/Control: 00010 - Control
Control Type: LOW NOx BURNER

Item 59.2(From Mod 2):

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

Emission Unit: U-00001

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Process: 017

Source Classification Code: 1-03-005-02

Process Description:

Process 017 is the firing of ultra low sulfur # 2 distillate fuel oil (15 ppm or 0.0015 % maximum sulfur by weight) in the Low Pressure Boiler 00001 (Emission Source 00001 in Emission Unit U-00001) beginning January 1, 2015 as per Riverbay's NOx RACT Plan. The emissions are exhausted through a stack identified as Emission Point 00001.

This process involves Boiler #1 burning #2 fuel oil after January 1, 2015 as per Riverbay's NOx RACT Plan.

Boilers #1 & #2 (Emission Source 00001 in Emission Unit U-00001 and Emission Source HPB02 in Emission Unit U-00002) have a combined annual natural gas limit of 2,912 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 6.11 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler and the 414 MM Btu/hr Victory Energy high pressure boiler.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Emission Source/Control: 00001 - Combustion
Design Capacity: 371 million Btu per hour

Emission Source/Control: 00001 - Combustion
Design Capacity: 371 million Btu per hour

Emission Source/Control: 00010 - Control
Control Type: LOW NOx BURNER

Item 59.3(From Mod 2):

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

Emission Unit: U-00002

Process: 030

Source Classification Code: 1-03-004-01

Process Description:

Process 030 is the firing of ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight in the High Pressure Boiler 00002 (Emission

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Source 00020 in Emission Unit U-00002). The emissions are exhausted through a stack identified as Emission Point 00002. This boiler is equipped with NOx control technology to achieve compliance with EPA's NSPS Standards Subpart Db and the Department's NOx RACT rule 6 NYCRR 227-2.

The 414 MM Btu/hr Victory Energy High Pressure Boiler (Emission Source HPB02) has replaced the 371 MM Btu/hr Riley Stoker Low Pressure Boiler (Emission Source 00002) on January 1, 2015. This boiler fires natural gas as the primary fuel and ultra low sulfur # 2 distillate fuel oil (15 ppm maximum by weight) as the secondary fuel.

Boilers #1 & #2 (Emission Source 00001 in Emission Unit U-00001 and Emission Source HPB02 in Emission Unit U-00002) have a combined annual natural gas limit of 2,912 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 6.11 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler and the 414 MM Btu/hr Victory Energy high pressure boiler.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Emission Source/Control: HPB02 - Combustion
Design Capacity: 414 million Btu per hour

Emission Source/Control: HPC02 - Control
Control Type: LOW NOX BURNERS, FLUE GAS
RECIRCULATION

Item 59.4(From Mod 2):

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

Emission Unit: U-00002

Process: 040

Source Classification Code: 1-03-006-01

Process Description:

Process 040 is the firing of natural gas in the High Pressure Boiler 00002 (Emission Source HPB02 in Emission Unit U-00002). The emissions are exhausted through a stack identified as Emission Point 00002. This boiler is equipped with NOx control technology to achieve compliance

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



with EPA's NSPS Standards Subpart Db and the Department's NO_x RACT rule 6 NYCRR 227-2.

The 414 MM Btu/hr Victory Energy High Pressure Boiler (Emission Source HPB02) has replaced the 371 MM Btu/hr Riley Stoker Low Pressure Boiler (Emission Source 00002) on January 1, 2015. This boiler fires natural gas as the primary fuel and ultra low sulfur # 2 distillate fuel oil (15 ppm maximum by weight) as the secondary fuel.

Boilers #1 & #2 (Emission Source 00001 in Emission Unit U-00001 and Emission Source HPB02 in Emission Unit U-00002) have a combined annual natural gas limit of 2,912 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 6.11 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler and the 414 MM Btu/hr Victory Energy high pressure boiler.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Emission Source/Control: HPB02 - Combustion
Design Capacity: 414 million Btu per hour

Emission Source/Control: HPC02 - Control
Control Type: LOW NOX BURNERS, FLUE GAS
RECIRCULATION

Item 59.5(From Mod 2):

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

Emission Unit: U-00003

Process: 005

Source Classification Code: 1-03-004-01

Process Description:

Process 005 consists of the firing of # 2 ULSD distillate fuel oil (15 ppm or 0.0015 % maximum sulfur by weight) in the new state-of-the art new high pressure and low heat release boiler (Rentech Model D Watertube Boiler), rated at 212 MM BTU/hr on natural gas (Emission Source HPB03 in Emission Unit U-00003), venting to existing stack (Emission Point 00003) for Emission Source HPC03 in Emission Unit U-00003.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The new boiler will fire either natural gas or ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight. The new boiler is rated at 206 MM BTU/hr on distillate oil with maximum firing rate of 1,490 gallons per hour. The new boiler will be equipped with a low NOx burner and Flue Gas Recirculation - FGR (Emission Control HPC03). Potential emissions of all criteria air pollutants will be significantly lower for the new boiler.

The 212 MM BTU/hr high pressure Rentech boiler is a replacement for the older high pressure boiler (Emission Source ES004 in Emission Unit U-00003), that was a Riley-Stoker Model OD-1, rated at 377 MM BTU/hr, firing #6 fuel oil or natural gas and was de-commissioned due to excessive repair needs. The 212 MM BTU/hr high pressure Rentech boiler has an annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 5.49 million gallons.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Emission Source/Control: HPB03 - Combustion
Design Capacity: 212 million BTUs per hour

Emission Source/Control: HPC03 - Control
Control Type: LOW NOX BURNERS, FLUE GAS
RECIRCULATION

Item 59.6(From Mod 2):

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

Emission Unit: U-00003

Process: 006

Source Classification Code: 1-03-006-01

Process Description:

Process 006 consists of the firing of natural gas in the new state-of-the art new high pressure and low heat release boiler (Rentech Model D Watertube Boiler), rated at 212 MM BTU/hr (Emission Source HPB03 in Emission Unit U-00003), venting to existing stack (Emission Point 00003) for Emission Source HPC03 in Emission Unit U-00003.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



This boiler will fire either ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight or natural gas. This boiler is rated at 212 mmbtu/hr with maximum firing rate of 206,000 cubic feet per hour. This boiler is equipped with a low NOx burner and Flue Gas Recirculation - FGR (Emission Control HPC03). Potential emissions of all criteria air pollutants are significantly lower for this boiler.

The 212 MM BTU/hr high pressure Rentech boiler is a replacement for the older high pressure boiler (Emission Source ES004 in Emission Unit U-00003), that was a Riley-Stoker Model OD-1, rated at 377 MM BTU/hr, firing #6 fuel oil or natural gas and was de-commissioned due to excessive repair needs. The 212 MM BTU/hr high pressure Rentech boiler has an annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 5.49 million gallons.

Boilers #1, #2 & #3 (Emission Source 00001 in Emission Unit U-00001, Emission Source HPB02 in Emission Unit U-00002, and Emission Source HPB03 in Emission Unit U-00003) have a combined annual natural gas limit of 4,748 million cubic feet and a combined annual ultra low sulfur # 2 distillate fuel oil (with 15 ppm or 0.0015 % maximum sulfur by weight) limit of 13.72 million gallons. These are the 371 MM Btu/hr Riley Stoker boiler, the 414 MM Btu/hr Victory Energy high pressure boiler and the 212 MM Btu/hr Rentech high pressure boiler; respectively.

Emission Source/Control: HPB03 - Combustion
Design Capacity: 212 million BTUs per hour

Emission Source/Control: HPC03 - Control
Control Type: LOW NOX BURNERS, FLUE GAS
RECIRCULATION

Item 59.7(From Mod 2):

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

Emission Unit: U-00004

Process: 007

Source Classification Code: 2-04-003-03

Process Description:

Process 007 is the firing of ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight in the Siemens Model 400-GT combustion turbine (Emission Source GT004) in Emission Unit U-00004, with maximum heat input rating of 138.5 MM Btu/hr. CO and VOC emissions are controlled with an oxidation catalyst. NOx

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



emissions are controlled with SCR using aqueous ammonia injection. The emissions vent out of a stack identified as Emission Point 00004. Process 007 operates at maximum load (100 %). Maximum operating hours on oil is 2,160 hours/year, following approved stack test PM-10 emission test of 15.0 mg/NM3 or less. Stack test was performed on 5-4-2010.

Emission Source/Control: GT004 - Combustion
Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC04 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.8(From Mod 2):

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

Emission Unit: U-00004

Process: 008

Source Classification Code: 2-04-003-03

Process Description:

Process 008 is the firing of ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight in the Siemens Model 400-GT combustion turbine (Emission Source GT004) in Emission Unit U-00004, with heat input rating of 109.5 MM Btu/hr at 70 % load. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emissions vent out of a stack identified as Emission Point 00004. Process 008 operates at minimum load of 70 % (except during start-up or shut-down). Maximum operating hours on oil at low load is 1,080 hours/year, following approved stack test PM-10 emission test of 30 mg/NM3 or less. Stack test was performed on 5-4-2010.

Maximum operating hours for the combustion turbine operating on oil at 70 % load is 2,160 hours per year for the two combined combustion turbines.

Emission Source/Control: GT004 - Combustion
Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC04 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.9(From Mod 2):

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

Emission Unit: U-00004

Process: 009

Source Classification Code: 2-04-003-01

Process Description:

Process 009 is the firing of natural gas in the Siemens

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Model 400-GT combustion turbine (Emission Source GT004) in Emission Unit U-00004 with maximum heat input rating of 139.6 MM Btu/hr. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emissions vent out of a stack identified as Emission Point 00004. Process 009 operates at maximum load (100 %). Maximum operating hours for both gas turbines (U-00004 and U-00006) is 14,000 hours/year. Maximum operating hours on oil is 2,160 hours/year per turbine, following approved stack test PM-10 emissions test of 15 mg/NM3 or less on oil and 7.5 mg/NM3 on gas. Stack test was performed on 5-4-2010.

Emission Source/Control: GT004 - Combustion
Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC04 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.10(From Mod 2):

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

Emission Unit: U-00004
Process: 011 Source Classification Code: 2-04-003-01
Process Description:

Process 011 is the firing of natural gas in the Forney Model 5156-IST duct burner (Emission Control GTC04) in Emission Unit U-00004 with maximum heat input rating of 60.7 MMBtu/hr. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emissions vent out of a stack identified as Emission Point 00004. Maximum total fuel consumption for both duct burners is 320 MMCF/year.

Emission Source/Control: GT004 - Combustion
Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC04 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.11(From Mod 2):

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

Emission Unit: U-00004
Process: P10 Source Classification Code: 2-04-003-01
Process Description:

Process P10 is the firing of natural gas in the Siemens Model 400-GT combustion turbine (Emission Source U-GT006) in Emission Unit U-00006 with maximum heat input rating of 110.6 MM Btu/hr at 70 % load. CO and VOC emissions are

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emissions vent out of a stack identified as Emission Point 00006. Process P10 operates at minimum load of 70 % (except during start-up or shut-down). Maximum total operating hours for both gas turbines (U-00004 and U-00006) at low load is 7,000 hours/year. Maximum operating hours on oil at minimum load is 1,080 hours/year, following approved stack test PM-10 emission test of 30 mg/NM3 or less on oil and 15 mg/NM3 or less on gas. Stack test was performed on 5-4-2010.

Emission Source/Control: GT004 - Combustion

Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC04 - Control

Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.12(From Mod 2):

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

Emission Unit: U-00006

Process: 012

Source Classification Code: 2-04-003-03

Process Description:

Process 012 is the firing of ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur by weight in the Siemens Model 400-GT combustion turbine (Emission Source GT006) in Emission Unit U-00006, with maximum heat input rating of 138.5 MM Btu/hr. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emission vents out of a stack identified as Emission Point 00006. Process 012 operates at maximum load (100 %). Maximum operating hours on oil is 2,160 hours/year, following approved stack test PM-10 emission test of 15 mg/NM3 or less. Stack test was performed on 5-4-2010.

Emission Source/Control: GT006 - Combustion

Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC06 - Control

Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.13(From Mod 2):

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

Emission Unit: U-00006

Process: 013

Source Classification Code: 2-04-003-03

Process Description:

Process 013 is the firing of ultra low sulfur # 2 distillate fuel oil with 15 ppm or 0.0015 % maximum sulfur

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



by weight in the Siemens Model 400-GT combustion turbine (Emission Source GT006) in Emission Unit U-00006, with heat input rating of 109.5 MM Btu/hr at 70 % load. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emission vents out of a stack identified as Emission Point 00006. Process 013 operates at minimum load of 70% (except during start-up or shut-down). Maximum operating hours on oil at low load is 1,080 hours/year, following approved stack test PM-10 emission test of 30 mg/NM3 or less. Stack test was performed on 5-10-2010.

Maximum operating hours for the combustion turbine operating on oil at 70 % load is 2,160 hours per year for the two combined combustion turbines.

Emission Source/Control: GT006 - Combustion
Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC06 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.14(From Mod 2):

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

Emission Unit: U-00006

Process: 014

Source Classification Code: 2-04-003-01

Process Description:

Process 014 is the firing of natural gas in the Siemens Model 400-GT combustion turbine (Emission Source GT006) in Emission Unit U-00006 with maximum heat input rating of 139.6 MM Btu/hr. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emission vents out of a stack identified as Emission Point 00006. Process 014 operates at maximum load (100%). Maximum operating hours for both gas turbines (U-00004 and U-00006) is 14,000 hours/year. Maximum operating hours on oil is 2,160 hours/year per turbine, following approved stack test PM-10 emissions test of 15 mg/NM3 or less on oil and 7.5 mg/NM3 on gas. Stack test was performed on 5-4-2010.

Emission Source/Control: GT006 - Combustion
Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC06 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.15(From Mod 2):

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00006

Process: 015

Source Classification Code: 2-04-003-01

Process Description:

Process 015 is the firing of natural gas in the Siemens Model 400-GT combustion turbine (Emission Source GT006) in Emission Unit U-00006 with maximum heat input rating of 110.6 MM Btu/hr at 70 % load. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. Process 015 operates at minimum load is 70 % (except during start-up or shut-down).

Maximum total operating hours for both gas turbines (U-00004 and U-00006) at low load is 7000 hours/year. Maximum operating hours on oil at minimum load is 1,080 hours/year per turbine, following approved stack test PM-10 emission test of 30 mg/NM3 or less on oil and 15 mg/NM3 or less on gas. Stack test was performed on 5-4-2010.

Emission Source/Control: GT006 - Combustion

Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC06 - Control

Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.16(From Mod 2):

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

Emission Unit: U-00006

Process: 016

Source Classification Code: 2-04-003-01

Process Description:

Process 016 is the firing of natural gas in the Forney Model 5156-IST duct burner (Emission Control GTC006) in Emission Unit U-00006 with maximum heat input rating of 60.7 MMBtu/hr. CO and VOC emissions are controlled with an oxidation catalyst. NOx emissions are controlled with SCR using aqueous ammonia injection. The emissions vent out of a stack identified as Emission Point 00006. Maximum total fuel consumption for both duct burners is 320 MMCF/year.

Emission Source/Control: GT006 - Combustion

Design Capacity: 131 million Btu per hour

Emission Source/Control: GTC06 - Control

Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 59.17(From Mod 1):

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00007

Process: GEN

Source Classification Code: 2-03-001-07

Process Description:

Process GEN is the combustion of diesel fuel oil in the 1,500 KW diesel fuel engine generator unit in Emission Unit U-00007. The flue gases generated from Emission Source GEN01 will vent to the atmosphere via its individual stack identified as Emission Point 00007.

This 1,500 KW diesel fuel engine generator unit is re-classified from an emergency generator to a "peak shaving unit" in the CDRP with a cap operational limit of 1,055 hours annually. Emission Source GEN01 is a MTU Deteroit Diesel Model 12V400 G43 4 cycle unit rated at 1500 KW (2,000 bhp) capable of firing #2 fuel oil. The total displacement of the engine is 57.2 liters for 12 cylinders. Therefore, the displacement per cylinder is 4.77 liters and the engine is rated at 1800 rpm.

This 1,500 KW diesel engine generator unit burns ultra low sulfur fuel with maximum sulfur content of 15 ppm, in accordance with 40 CFR 60.4207(b) and 40 CFR 80.510(b). The emergency generator is 1,500 KW (2000 bhp). The generator has 12 cylinders with a total displacement of 57.2 liters, 4.77 liters per cylinder.

This 1,500 KW diesel engine generator (Emission Source GEN01) in Emission Unit U-00007 complies with the EPA standards that apply at the time of purchase (February 2008). It is assumed that the generator is 2008 Model and the displacement is 4.77 liters/cylinder (less than 10 liters per cylinder), and meets the certification standards in 40 CFR 89.113 (in accordance with 40 CFR 60.4202(a)(2)).

The engine associated with this generator is subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary compression Ignition Internal Combustion Engines, and 40 CFR Part 63, subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This generator is a peak shaving engine unit and is not an emergency power engine unit, it is not an exempt source. Subpart 227-2.4(f), Control Requirements for Stationary internal combustion engines, stipulates the presumptive NOx emission rate limit at 2.3 grams per brake horsepower-hour, for engines with a maximum mechanical output rating equal to or greater than 200 brake horsepower in a severe ozone nonattainment area. Subpart 227-2.5, Compliance options, (c), allows demonstration that the presumptive RACT emission limit is not

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



economically or technically feasible and a request for a higher specific limit. The application includes a NO_x RACT analysis, which considers the alternate technology of selective catalytic reduction (SCR) for enhanced NO_x emission reduction. Based upon this NO_x RACT analysis, Riverbay Corp is not considering the installation of SCR control technology based upon associated economics. The facility is applying for a NO_x Variance for this non-emergency generator.

This 1,500 KW diesel fuel engine generator unit is re-classified from an emergency generator to a "peak shaving unit" in the CDRP with a cap operational limit of 1,055 hours annually, and operates on #2 diesel fuel.

Fuel Type - Diesel #2

Fuel consumption rating (standby mode)

100% power rating - 111.0 gal/hr

75% power rating - 85.3 gal/hr

50% power rating - 59.6 gal/hr

Maximum power (standby mode) - 2,328 bhp / 1,736 KW

Exhaust system rating (standby mode)

Stack Gas Temperature - 815 degrees Fahrenheit

Stack Gas Volumetric Flow rate @ stack

temperature - 12,078 CFM

Maximum Allowable Back pressure - 34.1 inches of H₂O

Standard Feature - EPA Tier 2 Certified (40 CFR Part 89)

Tier 2 Non-road Diesel Emission Standards for engines greater than 560 KW (750 Hp) power rating.

The diesel fuel engine generator unit is re-classified from an emergency generator to a peak shaving unit and will operate below 219,000 MW-hrs output/year. It burns ultra low sulfur fuel with maximum sulfur content of 15 ppm, in accordance with 40 CFR 60.4207(b) and 40 CFR 80.510(b).

Emission Source/Control: GEN01 - Combustion

Design Capacity: 2,328 brake horsepower

Condition 2-16: Emission Unit Permissible Emissions
Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 2-16.1:

The sum of emissions from all regulated processes specified in this permit for the emission unit cited

shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001

CAS No: 0NY075000 (From Mod 2)

Name: PARTICULATES

PTE(s): 2.53 pounds per hour

22,131 pounds per year

CAS No: 0NY075005 (From Mod 2)

Name: PM-10

PTE(s): 2.53 pounds per hour

22,131 pounds per year

CAS No: 0NY210000 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 33.24 pounds per hour

291,200 pounds per year

Emission Unit: U-00002

CAS No: 0NY075000 (From Mod 2)

Name: PARTICULATES

PTE(s): 4.17 pounds per hour

36,519 pounds per year

CAS No: 0NY075005 (From Mod 2)

Name: PM-10

PTE(s): 36,519 pounds per year

4.17 pounds per hour

CAS No: 0NY210000 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 33.24 pounds per hour

291,200 pounds per year

Emission Unit: U-00003

CAS No: 0NY075000 (From Mod 2)

Name: PARTICULATES

PTE(s): 45,484 pounds per year

5.19 pounds per hour

CAS No: 0NY075005 (From Mod 2)

Name: PM-10

PTE(s): 45,484 pounds per year

5.19 pounds per hour

CAS No: 0NY210000 (From Mod 2)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Name: OXIDES OF NITROGEN
PTE(s): 183,600 pounds per year
20.96 pounds per hour

Emission Unit: U-00004

CAS No: 0NY075000 (From Mod 2)
Name: PARTICULATES
PTE(s): 39,149 pounds per year
4.47 pounds per hour

CAS No: 0NY075005 (From Mod 2)
Name: PM-10
PTE(s): 39,149 pounds per year
4.47 pounds per hour

CAS No: 0NY210000 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 11,738 pounds per year
3.35 pounds per hour

Emission Unit: U-00006

CAS No: 0NY075000 (From Mod 2)
Name: PARTICULATES
PTE(s): 39,149 pounds per year
4.47 pounds per hour

CAS No: 0NY075005 (From Mod 2)
Name: PM-10
PTE(s): 39,149 pounds per year
4.47 pounds per hour

CAS No: 0NY210000 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 11,738 pounds per year
3.35 pounds per hour

Condition 60: Process Permissible Emissions
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 60.1:

The sum of emissions from the regulated process cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001 Process: 001

CAS No: 0NY075-00-0 (From Mod 1)
Name: PARTICULATES

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



PTE(s): 15.1 pounds per hour
0.041 pounds per million Btus
7,760 pounds per year

CAS No: 0NY210-00-0 (From Mod 1)

Name: OXIDES OF NITROGEN

PTE(s): 92.8 pounds per hour
0.25 pounds per million Btus
47,800 pounds per year

Emission Unit: U-00001 Process: 002

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 2.53 pounds per hour
0.0074 pounds per million Btus
22,131 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 2.53 pounds per hour
0.0074 pounds per million Btus
22,131 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 33.24 pounds per hour
0.25 pounds per million Btus
291,200 pounds per year

Emission Unit: U-00001 Process: 017

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 0.91 pounds per hour
7,943 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 0.91 pounds per hour
7,943 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 6.97 pounds per hour
61,100 pounds per year

Emission Unit: U-00002 Process: 003

CAS No: 0NY075-00-0 (From Mod 1)

Name: PARTICULATES

PTE(s): 15.1 pounds per hour

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



0.041 pounds per million Btus
7,760 pounds per year

CAS No: 0NY210-00-0 (From Mod 1)
Name: OXIDES OF NITROGEN
PTE(s): 92.8 pounds per hour

0.25 pounds per million Btus
47,800 pounds per year

Emission Unit: U-00002

Process: 004

CAS No: 0NY075-00-0 (From Mod 1)
Name: PARTICULATES
PTE(s): 2.74 pounds per hour

0.0074 pounds per million Btus
7,920 pounds per year

CAS No: 0NY210-00-0 (From Mod 1)
Name: OXIDES OF NITROGEN
PTE(s): 92.8 pounds per hour

0.25 pounds per million Btus
268,000 pounds per year

Emission Unit: U-00002

Process: 030

CAS No: 0NY075-00-0 (From Mod 2)
Name: PARTICULATES
PTE(s): 4.17 pounds per hour

36,519 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)
Name: PM-10
PTE(s): 4.17 pounds per hour

36,519 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 6.97 pounds per hour

61,100 pounds per year

Emission Unit: U-00002

Process: 040

CAS No: 0NY075-00-0 (From Mod 2)
Name: PARTICULATES
PTE(s): 2.53 pounds per hour

22,131 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)
Name: PM-10
PTE(s): 2.53 pounds per hour

22,131 pounds per year

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 33.24 pounds per hour

291,200 pounds per year

Emission Unit: U-00003

Process: 005

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 5.19 pounds per hour

0.03 pounds per million Btus

45,484 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 5.19 pounds per hour

0.03 pounds per million Btus

45,484 pounds per year

CAS No: 0NY210-00-0 (From Mod 0)

Name: OXIDES OF NITROGEN

PTE(s): 75 parts per million by volume (dry, corrected to 15% O₂)

8.69 pounds per hour

76,099 pounds per year

Emission Unit: U-00003

Process: 006

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 1.59 pounds per hour

0.005 pounds per million Btus

13,954 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 1.59 pounds per hour

0.005 pounds per million Btus

13,954 pounds per year

CAS No: 0NY210-00-0 (From Mod 0)

Name: OXIDES OF NITROGEN

PTE(s): 30 parts per million by volume (dry, corrected to 15% O₂)

20.96 pounds per hour

183,600 pounds per year

Emission Unit: U-00004

Process: 007

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 1.24 pounds per hour

2,677 pounds per year

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 1.24 pounds per hour

2,677 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 3.35 pounds per hour

7,244 pounds per year

Emission Unit: U-00004

Process: 008

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 0.62 pounds per hour

4,333 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 0.62 pounds per hour

4,333 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 1.68 pounds per hour

11,738 pounds per year

Emission Unit: U-00004

Process: 009

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 4.47 pounds per hour

39,149 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 4.47 pounds per hour

39,149 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 0.73 pounds per hour

6,419 pounds per year

Emission Unit: U-00004

Process: 011

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 0.441 pounds per hour

2,432 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Name: PM-10

PTE(s): 0.441 pounds per hour
2,432 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 2.45 pounds per hour
6,597 pounds per year

Emission Unit: U-00004

Process: P10

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 0.76 pounds per hour
6,637 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 0.76 pounds per hour
6,637 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 0.73 pounds per hour
6,419 pounds per year

Emission Unit: U-00006

Process: 012

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 4.47 pounds per hour
39,149 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 4.47 pounds per hour
39,149 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 0.84 pounds per hour
7,336 pounds per year

Emission Unit: U-00006

Process: 013

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 0.76 pounds per hour
6,637 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



PTE(s): 0.76 pounds per hour
6,637 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 0.837 pounds per hour
7,336 pounds per year

Emission Unit: U-00006 Process: 014

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 4.47 pounds per hour
39,149 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 4.47 pounds per hour
39,149 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 0.73 pounds per hour
6,419 pounds per year

Emission Unit: U-00006 Process: 015

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 0.76 pounds per hour
6,637 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 0.76 pounds per hour
6,637 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 0.73 pounds per hour
6,419 pounds per year

Emission Unit: U-00006 Process: 016

CAS No: 0NY075-00-0 (From Mod 2)

Name: PARTICULATES

PTE(s): 0.441 pounds per hour
2,432 pounds per year

CAS No: 0NY075-00-5 (From Mod 2)

Name: PM-10

PTE(s): 0.441 pounds per hour

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



2,432 pounds per year

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 2.45 pounds per hour

6,597 pounds per year

Emission Unit: U-00007

Process: GEN

CAS No: 0NY210-00-0 (From Mod 1)

Name: OXIDES OF NITROGEN

PTE(s): 26.597 pounds per hour

28,060 pounds per year

Condition 2-17: Emission Unit Permissible Emissions
Effective between the dates of 06/07/2016 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 201-7.1

Item 2-17.1:

The sum of emissions from all regulated processes specified in this permit for the emission unit cited

shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001

CAS No: 0NY210000 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 291,200 pounds per year

33.24 pounds per hour

Emission Unit: U-00002

CAS No: 0NY210000 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 291,200 pounds per year

33.24 pounds per hour

Emission Unit: U-00003

CAS No: 0NY210000 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 183,600 pounds per year

20.96 pounds per hour

Emission Unit: U-00004

CAS No: 0NY210000 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 11,738 pounds per year

3.35 pounds per hour

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00006

CAS No: 0NY210000 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 11,738 pounds per year

3.35 pounds per hour

Condition 1-29: Process Permissible Emissions

Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 201-7.1

Item 1-29.1:

The sum of emissions from the regulated process cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001 Process: 001

CAS No: 0NY210-00-0 (From Mod 1)

Name: OXIDES OF NITROGEN

PTE(s): 92.8 pounds per hour

0.25 pounds per million Btus

47,800 pounds per year

Emission Unit: U-00001 Process: 002

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 33.24 pounds per hour

0.25 pounds per million Btus

291,200 pounds per year

Emission Unit: U-00001 Process: 017

CAS No: 0NY210-00-0 (From Mod 2)

Name: OXIDES OF NITROGEN

PTE(s): 6.97 pounds per hour

61,100 pounds per year

Emission Unit: U-00002 Process: 003

CAS No: 0NY210-00-0 (From Mod 1)

Name: OXIDES OF NITROGEN

PTE(s): 92.8 pounds per hour

0.25 pounds per million Btus

47,800 pounds per year

Emission Unit: U-00002 Process: 004

CAS No: 0NY210-00-0 (From Mod 1)

Name: OXIDES OF NITROGEN

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



PTE(s): 92.8 pounds per hour
0.25 pounds per million Btus
268,000 pounds per year

Emission Unit: U-00002 Process: 030

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 6.97 pounds per hour
61,100 pounds per year

Emission Unit: U-00002 Process: 040

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 33.24 pounds per hour
291,200 pounds per year

Emission Unit: U-00003 Process: 005

CAS No: 0NY210-00-0 (From Mod 0)
Name: OXIDES OF NITROGEN
PTE(s): 75 parts per million by volume (dry, corrected to 15% O2)
8.69 pounds per hour
76,099 pounds per year

Emission Unit: U-00003 Process: 006

CAS No: 0NY210-00-0 (From Mod 0)
Name: OXIDES OF NITROGEN
PTE(s): 30 parts per million by volume (dry, corrected to 15% O2)
20.96 pounds per hour
183,600 pounds per year

Emission Unit: U-00004 Process: 007

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 3.35 pounds per hour
7,244 pounds per year

Emission Unit: U-00004 Process: 008

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 1.68 pounds per hour
11,738 pounds per year

Emission Unit: U-00004 Process: 009

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



PTE(s): 0.73 pounds per hour
6,419 pounds per year

Emission Unit: U-00004 Process: 011

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 2.45 pounds per hour
6,597 pounds per year

Emission Unit: U-00004 Process: P10

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 0.73 pounds per hour
6,419 pounds per year

Emission Unit: U-00006 Process: 012

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 0.84 pounds per hour
7,336 pounds per year

Emission Unit: U-00006 Process: 013

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 0.837 pounds per hour
7,336 pounds per year

Emission Unit: U-00006 Process: 014

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 0.73 pounds per hour
6,419 pounds per year

Emission Unit: U-00006 Process: 015

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 0.73 pounds per hour
6,419 pounds per year

Emission Unit: U-00006 Process: 016

CAS No: 0NY210-00-0 (From Mod 2)
Name: OXIDES OF NITROGEN
PTE(s): 2.45 pounds per hour
6,597 pounds per year

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00007

Process: GEN

CAS No: 0NY210-00-0 (From Mod 1)

Name: OXIDES OF NITROGEN

PTE(s): 26.597 pounds per hour

28,060 pounds per year

Condition 61: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 61.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00001

Item 61.2:

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 utilizing a continuous opacity monitor (COM).

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 7/30/2013.

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

Condition 62: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 62.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00001

Item 62.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Description:

Each owner or operator required to operate a Continuous Opacity Monitoring System (COMS) in accordance with subsection 227-1.4(a) shall submit an accurate excess emissions and monitoring system performance report to the Department for each calendar year quarter. All reports shall be certified by a responsible corporate official as true, accurate and complete and postmarked by the 60th day following the end of each calendar quarter. The quarterly excess emissions report shall be submitted in a form acceptable to the Department and shall include the following minimum information:

- (1) The magnitude, date and time of each six minute block average during which the average opacity of emissions exceeds 20 percent, except for one six minute block average per hour not to exceed 27 percent;
- (2) For each period of excess emission, specific identification of the cause and corrective action taken;
- (3) Identification of all periods of COMS downtime, including the date, time and duration of each inoperable period, and the cause and corrective action for each COMS downtime period;
- (4) The total time in which the COMS are 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 things as the Department may deem necessary, proper or desirable in order to enforce Article 19 of the Environmental Conservation Law or the rules promulgated thereunder.

Manufacturer Name/Model Number: COMS - Durag Model 290

Reference Test Method: KEEP RECORDS

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 69: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 69.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00001

Process: 017

Emission Source: 00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 69.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate emission limit for stationary combustion installation firing oil. The owner or operator shall complete the following once per term of this permit:

1. Submit to the Department an acceptable protocol for the testing of particulate emission 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. All records shall be maintained at the facility for a minimum of five years.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: Method 5

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 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 70: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 70.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Emission Point: 00002

Item 70.2:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 utilizing a continuous opacity monitor (COM).

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 7/30/2013.

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

Condition 71: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 71.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Emission Point: 00002

Item 71.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Each owner or operator required to operate a Continuous Opacity Monitoring System (COMS) in accordance with subsection 227-1.4(a) shall submit an accurate excess emissions and monitoring system performance report to the Department for each calendar year quarter. All reports shall be certified by a responsible corporate official as true, accurate and complete and postmarked by the 60th day following the end of each calendar quarter. The quarterly excess emissions report shall be submitted in a form acceptable to the Department and shall include the following minimum information:

(1) The magnitude, date and time of each six minute block average during which the average opacity of emissions exceeds 20 percent, except for one six minute block average per hour not to exceed 27 percent;

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



- (2) For each period of excess emission, specific identification of the cause and corrective action taken;
- (3) Identification of all periods of COMS downtime, including the date, time and duration of each inoperable period, and the cause and corrective action for each COMS downtime period;
- (4) The total time in which the COMS are 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 things as the Department may deem necessary, proper or desirable in order to enforce Article 19 of the Environmental Conservation Law or the rules promulgated thereunder.

Manufacturer Name/Model Number: COMS - Durag Model 290
Reference Test Method: KEEP RECORDS
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 77: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 77.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-00003 Emission Point: 00003

Item 77.2:
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 utilizing a continuous opacity monitor (COM).

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 82: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 82.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003	Emission Point: 00003
Process: 005	Emission Source: HPB03

Regulated Contaminant(s):
CAS No: 000000-00-0 PARTICULATES

Item 82.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate emission limit for stationary combustion installation firing oil. The owner or operator shall complete the following once per term of this permit:

1. Submit to the Department an acceptable protocol for the testing of particulate emission 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. All records shall be maintained at the facility for a minimum of five years.

Parameter Monitored: PARTICULATES
Upper Permit Limit: 0.10 pounds per million Btus
Reference Test Method: Method 5
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 30 days after the reporting period.
The initial report is due 10/30/2013.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

Condition 83: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.8, NSPS Subpart A

Item 83.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Item 83.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Stack performance tests shall be performed within 60 days after achieving the maximum production rate but not later than 180 days after initial start-up.

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 84: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.42b(j), NSPS Subpart Db

Item 84.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 84.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

40 CFR 60 Subpart Db - standards for sulfur dioxide will be met by compliance with paragraph (j) by firing only ultra low sulfur distillate oil (# 2 fuel oil) that contains no more than 15.0 ppm sulfur by weight. Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil under 40

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



CFR 60.42b(j). The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by (1) following the performance testing procedures as described in Part 60.45b(c) or Part 60.45b(d), and following the monitoring procedures as described in Part 60.47b(a) or Part 60.47b(b) to determine sulfur dioxide emission rate of fuel oil sulfur content; or (2) obtaining and maintaining fuel receipts and certification from the fuel supplier as described in Part 60.49b(r).

Emission monitoring will be based on 40 CFR 60.47b(f).

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 85: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.43b(b), NSPS Subpart Db

Item 85.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 85.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Compliance with Particulate emission limits in 40 CFR 60.43(b)(b) is achieved by the use of ultra low sulfur oil (less than 15 ppm sulfur by weight). A one time stack test will be performed to determine PM and PM-10 emissions following the requirement of 40 CFR 60.8, and using procedures described in 40 CFR 60.49.

Upper Permit Limit: 0.1 pounds per million Btus

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Reference Test Method: EPA Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 86: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 60.43b(f), NSPS Subpart Db

Item 86.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 86.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The owner or operator shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6 minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

The facility is exempt from the opacity limits under 40 CFR 60.43b(h)(5) by burning very low sulfur # 2 fuel oil and natural gas. NYSDEC regulations limit discharge into the atmosphere gases that exhibit greater than 20% opacity for a 6-minute average. A Continuous Opacity Monitor (COMS) will be used to monitor opacity.

Manufacturer Name/Model Number: COMS - Durag Model 290

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent by weight

Reference Test Method: Continuous Opacity Monitor

Monitoring Frequency: CONTINUOUS

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 10/30/2013.

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

Condition 87: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 60.44b(a)(1), NSPS Subpart Db

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 87.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Regulated Contaminant(s):

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

Item 87.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Oxides of nitrogen standard for industrial/commercial/institutional steam generating units: The facility shall discharge a maximum of 0.10 lbs/MM BTU of NO_x for large boilers (<70,000 BTU/hr/cu.ft) while firing natural gas or distillate oil. Compliance with the emission limit will be based on a Continuous Emissions Monitor (CEM) in accordance with 40 CFR 60.46b (e) and 40 CFR 60.8. Emission Source HPB03 in Emission Unit U-00003 is a 212 MM BTU/hr high pressure boiler, and operates on gas or distillate oil.

Based upon stack test results dated 2/20/2009 of heat input at 197.2 million Btu per hour, flue gas volumetric flow rate at 51,650 Acfm, the calculated heat release rate is 63.6 Btu per hour-cubic feet.

Manufacturer Name/Model Number: CEMS - Siemens 600 NOxMAT

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: EPA METHOD 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 30-DAY ROLLING AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 88: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.44b(a)(1), NSPS Subpart Db

Item 88.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 88.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Compliance with the sulfur dioxide emission standard is demonstrated by burning only ultra low sulfur oil (less than 15 ppm sulfur by weight). Compliance is monitored by maintaining records on fuel oil certification provided by the oil supplier with each delivery, indicating that the sulfur content in the fuel oil is less than 15.0 ppm % by weight.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 89: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.45b(j), NSPS Subpart Db

Item 89.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 89.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Exemption for very low sulfur oil: The owner or operator of an affected facility that combusts ultra low sulfur distillate oil (<15 ppm S by weight) is not subject to the compliance and performance testing requirements of this

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



section if the owner or operator obtains fuel receipts as described in §60.49b(r).

Monitoring Frequency: PER DELIVERY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 90: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.46b(e), NSPS Subpart Db

Item 90.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003 Emission Point: 00003
Process: 005 Emission Source: HPB03

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

Item 90.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

To determine compliance with the emission limits for nitrogen oxides required under 40 CFR 60-Db.44b, the owner or operator of an affected facility shall conduct the performance test as required under 40 CFR 60.8 using the continuous system for monitoring nitrogen oxides under 40 CFR 60.48(b). The nitrogen oxides limit is 0.10 lbs/MM BTU.

A Continuous Emissions Monitor (CEMS) will be used to monitor compliance with the NO_x standard in accordance with the procedures under 60.48 (b).

Manufacturer Name/Model Number: CEMS - Siemens 600 NOxMAT

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: EPA METHOD 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 30-DAY AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 91: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 60.47b(f), NSPS Subpart Db

Item 91.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 91.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of section 40 CFR 60-Db.47b if the owner or operator obtains fuel receipts as described in subdivision 40 CFR 60-Db.49b(r).

Very low sulfur oil means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input.

Facilities demonstrating compliance using the fuel supplier certification, for sulfur-in-fuel limitations (based on a percent by weight of sulfur in the fuel), shall submit the certification in accordance with the provisions of 40 CFR 60-Db.47b.

40 CFR 60-Db.47b(f), NSPS which limits the sulfur content in the residual oil to 0.5 percent by weight is not applicable to this facility. This regulation is superceded by regulation 6 NYCRR 225-1.2(a)(2), which limits the sulfur content in the residual oil to 0.30 percent by weight for facilities in a severe ozone non-attainment area such as New York City.

Riverbay Corp CO-OP City must comply with the 0.20 percent by weight sulfur content limit as per 6 NYCRR 225-1.2(a)(2), which has more stringent limit for New York City than 40 CFR 60-Db.47b(f), NSPS. Records of fuel receipts in accordance with 40 CFR 60.49b(r), indicating fuel sulfur content, are to be maintained on file to

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



determine compliance.

Compliance with the sulfur dioxide emission standard for Riverbay Corp Co-Op City will be based on a certification from the fuel supplier in accordance with 40 CFR 60.49b(r) that each fuel oil delivery is ultra low sulfur distillate oil (less than 15.0 ppm sulfur by weight).

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 92: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.48b(b), NSPS Subpart Db

Item 92.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 005

Emission Source: HPB03

Regulated Contaminant(s):

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

Item 92.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The owner or operator subject to 40CFR 60-Db.44b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

Emission Source S0005 is a 212 MM BTU/hr high pressure boiler. The NOx emission limit for natural gas and distillate oil for low heat release rate boilers is 0.10 lbs/million BTU.

Manufacturer Name/Model Number: CEMS - Siemens 600 NOxMAT

Upper Permit Limit: 0.10 pounds per million Btus

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Reference Test Method: Appendices B & F
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 93: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.49b(a), NSPS Subpart Db

Item 93.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003	Emission Point: 00003
Process: 005	Emission Source: HPB03

Item 93.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility will provide notifications to the EPA Administrator of initial start-up, performance test data and CEMS performance evaluation. The facility will maintain records of daily fuel burned, capacity factor, hourly emissions, opacity, RATA and drift tests, 30-day NOx rolling average, excess emissions hours with reasons and corrective actions, excluded data etc.

Monitoring Frequency: CONTINUOUS
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 97: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.8, NSPS Subpart A

Item 97.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003	Emission Point: 00003
Process: 006	Emission Source: HPB03

Item 97.2:

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Stack performance tests shall be performed within 60 days after achieving the maximum production rate but not later than 180 days after initial start-up.

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 99: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.46b(e), NSPS Subpart Db

Item 99.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 006

Emission Source: HPB03

Regulated Contaminant(s):

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

Item 99.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

To determine compliance with the emission limits for nitrogen oxides required under 40 CFR 60-Db.44b, the owner or operator of an affected facility shall conduct the performance test as required under 40 CFR 60.8 using the continuous system for monitoring nitrogen oxides under 40 CFR 60.48(b). The nitrogen oxides limit is 0.10 lbs/MM BTU.

A Continuous Emissions Monitor (CEMS) will be used to monitor compliance with the NO_x standard in accordance with the procedures under 60.48 (b).

Manufacturer Name/Model Number: CEMS - Siemens 600 NOxMAT

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: EPA METHOD 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 30-DAY AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 100: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.48b(b), NSPS Subpart Db

Item 100.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 006

Emission Source: HPB03

Regulated Contaminant(s):

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

Item 100.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The owner or operator subject to 40CFR 60-Db.44b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

Emission Source HPB03 is a 212 MM BTU/hr high pressure boiler. The NO_x emission limit for natural gas and distillate oil for low heat release rate boilers is 0.10 lbs/million BTU.

Manufacturer Name/Model Number: CEMS - Siemens 600 NOxMAT

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: Appendices B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 30-DAY AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 101: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.49b, NSPS Subpart Db

Item 101.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Emission Point: 00003

Process: 006

Emission Source: HPB03

Item 101.2:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility will provide notifications to the EPA Administrator of initial start-up, performance test data and CEMS performance evaluation. The facility will maintain records of daily fuel burned, capacity factor, hourly emissions, opacity, RATA and drift tests, 30-day NOx rolling average, excess emissions hours with reasons and corrective actions, excluded data etc.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 102: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 225-1.2

Item 102.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 102.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Riverbay Co-Op City will use distillate fuel oil with a sulfur limit of 15.0 parts by million by weight. The sulfur content will be certified by the fuel oil supplier with each delivery to the bulk storage tank, in accordance with 40 CFR 75, Appendix D, Section 2.2.1.2 and 40 CFR 60, section 334 (i)(1). A SO2 monitor will not be required.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: ANNUALLY (CALENDAR)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Reports due 30 days after the reporting period.
The initial report is due 4/30/2014.
Subsequent reports are due every 12 calendar month(s).

Condition 103: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 103.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004

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

Item 103.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

Manufacturer Name/Model Number: COMS - Durag Model DR-290

Parameter Monitored: OPACITY

Upper Permit Limit: 27 percent

Reference Test Method: 40 CFR 60 Appendix A , Method 9

Monitoring Frequency: CONTINUOUS

Averaging Method: ONE CONTINUOUS 6-MINUTE PERIOD PER HOUR

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 104: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 104.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004

Item 104.2:

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 utilizing a continuous opacity monitor (COM).

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 7/30/2013.

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

Condition 105: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-1.3 (b)

Item 105.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 105.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the opacity limit is demonstrated with a Continuous Opacity Monitor (COMS) in accordance with 40 CFR Part 60, Appendix A.

Manufacturer Name/Model Number: COMS - Durag Model DR-290

Parameter Monitored: OPACITY

Upper Permit Limit: 27 percent

Reference Test Method: 40 CFR 60 Appendix A, Method 9

Monitoring Frequency: CONTINUOUS

Averaging Method: ONE CONTINUOUS 6-MINUTE PERIOD PER
HOUR

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 106: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-1.3 (b)

Item 106.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 106.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the opacity limit is demonstrated with a Continuous Opacity Monitor (COMs) in accordance with 40 CFR Part 60, Appendix A.

Manufacturer Name/Model Number: COMS - Durag Model DR-290

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: 40 CFR 60 Appendix A, Method 9

Monitoring Frequency: CONTINUOUS

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 10/30/2013.

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

Condition 107: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 107.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

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

Item 107.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Description:

Oxides of nitrogen emissions from the combustion gas turbine (Emission Source GT004) burning natural gas will comply with the limit of 42.0 ppmvd @ 15% O₂ in accordance with 6 NYCRR 227-2.4(e) for combustion turbines. Compliance is demonstrated with a Continuous Emissions Monitor (CEMs) in accordance with 40 CFR Part 60 Appendix A.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 42.0 parts per million by volume
(dry, corrected to 15% O₂)

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

Monitoring Frequency: CONTINUOUS

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 108: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 108.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

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

Item 108.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Oxides of nitrogen emissions from the combustion gas turbine (Emission Source GT004) burning distillate oil will comply with the limit of 65.0 ppmvd @ 15% O₂ in accordance with 6 NYCRR 227-2.4(e) for combustion turbines. Compliance is demonstrated with a Continuous Emission Monitor (CEMs) in accordance with 40 CFR Part 60 Appendix A.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 65.0 parts per million by volume
(dry, corrected to 15% O₂)

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 109: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 109.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004

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

Item 109.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Oxides of Nitrogen emissions in pounds per hour during start-up and shut-down on natural gas, in order to establish an emission limit in pounds per hour for the combustion turbine (Emission Source GT004) operations. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 110: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 110.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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:

Records will be maintained of Oxides of Nitrogen emissions in pounds per hour during start-up and shut-down on distillate fuel oil, in order to establish an emission limit in pounds per hour for the combustion turbine (Emission Source GT004) operations. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 111: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 111.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 111.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Carbon Monoxide emissions in pounds per hour during start-up and shut-down on distillate oil, in order to establish an emission limit in pounds per hour for the combustion turbine (Emission Source GT004) operations. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 112: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 112.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 112.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.060 pounds per million Btu during natural gas firing in the gas turbine [Processes 009 and P10], Emission Source GT004 in Emission Unit U-00004 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4. BACT is required.

The sulfur dioxide emission limit is a discrete one hour average based on definition of "natural gas" per §60.331 (u) and the maximum heat input rating of the U-00004 combustion gas turbine. Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and have a gross caloric value between 950 and 1100 Btu per standard cubic foot. The calculated upper limit of sulfur dioxide emissions, assuming 100% conversion of sulfur to sulfur dioxide, is 0.060 lb/MM Btu.

$$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$$

lbs S per SCF gas

$$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$$

E-08 lbs S/Btu

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs S/Million Btu}$

$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1 \text{ lb Sulfur}) = 0.060 \text{ lbs Sulfur Dioxide/million Btu}$

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.060 pounds per million Btus

Reference Test Method: 40 CFR 60.334(h)

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: 1 HOUR MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2014.

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

Condition 113: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 113.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 113.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Riverbay Co-Op City will use distillate oil with a sulfur limit of 15.0 parts per million by weight to be certified by the distillate fuel oil supplier for each delivery to the bulk storage tank, in accordance with 40 CFR 75, Appendix D, Section 2.2.1.2 and 40 CFR Part 60, 334 (i)(1).

The sulfur dioxide emission limit is a discrete one hour average based on the continuous recording of distillate oil usage, with heat input corresponding to the higher heating value of the fuel. Compliance will be determined by fuel oil sulfur certification of less than 15.0 parts per million by weight Sulfur provided by supplier with

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



each delivery. Facility gas turbine fuel oil operation is limited to 3,460 total hours/year.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Reference Test Method: 40 CFR 60.335 Method

Monitoring Frequency: PER DELIVERY

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 4/30/2014.

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

Condition 114: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 114.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 114.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The natural gas combusted at the facility meets definition of "natural gas" per §60.331 (u). Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and a gross caloric value between 950 and 1100 Btu per standard cubic foot. As a result, sulfur dioxide emissions will be calculated using 0.060 lb/MMBtu, in accordance with 40 CFR 75, appendix D, Section 2.3.1.1. Riverbay CO-Op will monitor the monthly sulfur content data from either Consolidated Edison or Iroquois Pipeline.

$$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$$

lbs S per SCF gas

$$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$$

E-08 lbs S/Btu

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



$(3.01 \text{ E-}08 \text{ lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs S/Million Btu}$

$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1 \text{ lb Sulfur}) = 0.060 \text{ lbs Sulfur Dioxide/million Btu}$

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 20 grains per 100 dscf

Reference Test Method: 40 CFR 60.335 Method

Monitoring Frequency: MONTHLY

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 4/30/2014.

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

Condition 115: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(b), NSPS Subpart GG

Item 115.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

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

Item 115.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A NO_x CEMS is used to demonstrate compliance with 40 CFR 60, Subpart GG, section 332 (a)(1) in accordance with the certification requirements of 40 CFR 60.334(b), including Appendices B and F, and 40 CFR 75.

Riverbay Co-Op City will employ a NO_x CEM as an alternative for monitoring and reporting excess emissions.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Averaging Method: 3-HOUR ROLLING AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 116: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(c), NSPS Subpart GG

Item 116.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004

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

Item 116.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Riverbay Co-Op City will employ a NO_x CEM as an
alternative for monitoring and reporting excess
emissions.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 117: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(c)(1), NSPS Subpart GG

Item 117.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 117.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A NOx CEMS is used to demonstrate compliance with NOx emission limits of 75.0 ppmvd @ 15% O2 burning natural gas under Subpart GG in accordance with the certification requirements of 40 CFR 60 and 40 CFR 75. The permit emission limit is 3.5 ppmvd @ 15% O2 under normal operating conditions firing natural gas at 70 % load (Process P10).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 3.5 parts per million by volume
(dry, corrected to 15% O2)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 118: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(c)(1), NSPS Subpart GG

Item 118.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

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

Item 118.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A NOx CEMS is used to demonstrate compliance with NOx emission limits of 75.0 ppmvd @ 15% O2 burning distillate oil under Subpart GG in accordance with the certification requirements of 40 CFR 60 and 40 CFR 75. The permit emission limit is 6.0 ppmvd @ 15% O2 under normal operating conditions firing distillate fuel oil from 70% to 100% load.



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 119: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 60.334(c)(1), NSPS Subpart GG

Item 119.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

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

Item 119.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A NO_x CEMS is used to demonstrate compliance with NO_x emission limits of 75.0 ppmvd @ 15% O₂ burning natural gas under Subpart GG in accordance with the certification requirements of 40 CFR 60 and 40 CFR 75. The permit emission limit is 2.5 ppmvd @ 15% O₂ under normal operating conditions firing natural gas at 100% load (Process 009).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 120: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Applicable Federal Requirement: 40CFR 60.334(h)(3), NSPS Subpart GG

Item 120.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 120.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The natural gas combusted at the facility meets definition of "natural gas" per §60.331 (u). Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and a gross caloric value between 950 and 1100 Btu per standard cubic foot. As a result, sulfur dioxide emissions will be calculated using 0.060 lb/MMBtu, in accordance with 40 CFR 75, appendix D, Section 2.3.1.1. Riverbay CO-Op will monitor the monthly sulfur content data from either Consolidated Edison or Iroquois Pipeline.

$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$
lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1$
lb Sulfur) = 0.060 lbs Sulfur Dioxide/million Btu

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 20 grains per 100 dscf

Reference Test Method: 40 CFR 60.334(h)

Monitoring Frequency: MONTHLY

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 4/30/2014.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 121: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 60.334(i)(1), NSPS Subpart GG

Item 121.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 121.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Riverbay Co-Op City is proposing a distillate fuel oil sulfur limit of 15.0 ppm by weight to be certified by the fuel supplier with each delivery, in accordance with 40 CFR Part 75, Appendix D, Section 2.2.1.2 and 40 CFR Part 60, 334(i)(1).

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Reference Test Method: 40 CFR 60.335 Method

Monitoring Frequency: PER DELIVERY

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 4/30/2014.

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

Condition 122: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 122.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 00NY210-00-0

OXIDES OF NITROGEN

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 122.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NOx emission limit is 6.0 parts per million by volume (dry, corrected to 15% O2) during distillate oil firing at maximum load operation in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NOx emission at the gas turbine exhaust stack. LAER is required. Compliance with the NOx emission will be determined with the use of CEMS. The reference test method for NOx is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 123: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 123.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 000630-08-0

CARBON MONOXIDE

Item 123.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Carbon Monoxide emissions in pounds per hour during start-up and shut-down on natural gas, in order to establish an emissions limit in

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



pounds per hour for the combustion turbine (Emission Source GT004) operations. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 124: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 124.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004
Process: 007 Emission Source: GT004

Regulated Contaminant(s):
CAS No: 000000-00-0 VOC

Item 124.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A Method 18/25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 125: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 125.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 125.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The CO emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 126: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 126.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 126.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction. The Sulfuric Acid emission rate limit is 0.212 pounds per hour during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004). The hourly mass emission rate for Emission Unit U-00004 is based on the maximum sulfur content of the distillate oil (15 parts per million by weight), or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the combustion turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

A = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO
catalyst = 0.190956 lbs/hr of H₂SO₄

C = Emission factor of Sulfuric Acid due to the SCR
Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine +
emissions from CO catalyst + emissions from SCR catalyst =
A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212
lbs/hr of Sulfuric Acid

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.212 pounds per hour

Reference Test Method: 40 CFR 60 Appendix A, Method 8

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 127: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 127.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 127.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 0.00161 pounds per million Btu heat input during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004). The emission rate on a per million Btu basis for Emission Unit U-00004 is based on the maximum sulfur content of the distillate oil (15 parts per million by weight), or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the combustion turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



A = Emission factor of Sulfuric Acid due to Gas Turbine

GT004 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO

catalyst = 0.190956 lbs/hr of H₂SO₄

C = Emission factor of Sulfuric Acid due to the SCR

Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine +
emissions from CO catalyst + emissions from SCR catalyst =

A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212
lbs/hr of Sulfuric Acid

(0.212 lbs/hr of Sulfuric Acid) / (131 MM Btus/hr) =
0.00161 pounds per million Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.00161 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 128: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 128.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 128.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The Sulfur Dioxide emission limit is 0.3 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Compliance with the sulfur dioxide emissions will be determined based on fuel firing rate and % sulfur

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



analysis in the fuel oil (15.0 ppm maximum). BACT is required.

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Reference Test Method: 40 CFR 60.335 Method

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 10/30/2013.

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

Condition 129: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 129.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 129.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

The PM-10 emission limit is 25.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004) in Emission Unit U-00004 prior to approved stack test (based on vendor's guarantee).

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Parameter Monitored: PM-10

Upper Permit Limit: 15.0 milligrams per normal cubic
meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A, Methods 201A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 130: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 130.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 000000-00-0 PARTICULATES

Item 130.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

The Particulates emission limit is 25.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004) in Emission Unit U-00004) prior to approved stack test (based on vendor's guarantee).

Parameter Monitored: PARTICULATES

Upper Permit Limit: 15.0 milligrams per normal cubic
meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A, Method 5

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 131: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 131.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 007

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 131.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 007) in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 132: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 132.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004
Process: 008 Emission Source: GT004

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

Item 132.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A Method 18/25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 133: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 133.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004
Process: 008 Emission Source: GT004

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):

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

Item 133.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NOx emission limit is 6.0 parts per million by volume (dry, corrected to 15% O2) during distillate oil firing at minimum load operation (70 %) in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NOx emission at the gas turbine exhaust stack. LAER is required. Compliance with the NOx emission will be determined with the use of CEMS. The reference test method for NOx is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 134: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 134.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 008

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 134.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The CO emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 135: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 135.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 008

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 135.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 0.00161 pounds per million Btu heat input during distillate oil firing at 70 % load operation (Process 008) in the gas turbine (Emission Source GT004). The emission rate on a per million Btu basis for Emission Unit U-00004 is based on the maximum sulfur content of the distillate

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



oil (15 parts per million by weight), or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

A = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO catalyst = 0.190956 lbs/hr of H₂SO₄

C = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst =
A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212
lbs/hr of Sulfuric Acid

(0.212 lbs/hr of Sulfuric Acid) / (131 MM Btus/hr) =
0.00161 pounds per million Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.00161 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 136: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 136.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004
Process: 008

Emission Point: 00004
Emission Source: GT004

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):

CAS No: 007664-93-9

SULFURIC ACID

Item 136.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction. The Sulfuric Acid emission rate limit is 0.148 pounds per hour during distillate oil firing at 70% load operation (Process 008) in the gas turbine (Emission Source GT004). The hourly mass emission rate for Emission Unit U-00004 is based on the maximum sulfur content of the distillate oil (15 parts per million by weight) or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the combustion turbine, and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

A = Emission factor of Sulfuric Acid due to Gas Turbine GT004 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO catalyst = 0.190956 lbs/hr of H₂SO₄

C = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst =
A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212 lbs/hr of Sulfuric Acid

Sulfuric Acid Emissions at 70% load = 0.212 lbs/hr x 0.70 = 0.148 lbs/hr of H₂SO₄

Parameter Monitored: SULFURIC ACID

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Upper Permit Limit: 0.148 pounds per hour
Reference Test Method: 40 CFR Appendix A, Method 8
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 137: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 137.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004	Emission Point: 00004
Process: 008	Emission Source: GT004

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

Item 137.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.3 parts per million by volume during distillate oil firing at minimum load operation (70 %) - Process 008 in the gas turbine (Emission source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Compliance with the Sulfur Dioxide emissions will be determined based on fuel firing rate and % sulfur analysis in the fuel oil (maximum of 15.0 ppm). BACT is required.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Reference Test Method: 40 CFR 60.335 Method

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 10/30/2013.

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

Condition 138: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 138.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 008

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 138.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 008 in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PM-10

Upper Permit Limit: 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Methods 201 A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 139: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 139.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 008

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 139.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 008 in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 140: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 140.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 008

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 140.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 008 in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 141: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 141.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

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

Item 141.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the NO_x standard of 42 parts per million by volume (dry, corrected to 15% O₂) for the Siemens Model 400-GT combustion turbine (Emission Source GT004) with maximum heat input rating of 139.6 MM Btu/hr @ 100 % load (Process 009) will be met based on the combustion turbine emission guarantee of 2.5 parts per million by volume (dry, corrected to 15% O₂) on natural gas. Performance will be confirmed with a Continuous Emissions Monitor

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



(CEM) on the combustion gas turbine (Emission Source GT004) outlet in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.5 parts per million by volume
(dry, corrected to 15% O₂)

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

Monitoring Frequency: CONTINUOUS

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 142: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 142.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 142.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 2.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at maximum load operation in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.

Manufacturer Name/Model Number: TBD

Parameter Monitored: VOC

Upper Permit Limit: 2.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A, Method 18/25A

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 143: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 143.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

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

Item 143.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NOx emission limit is 2.5 parts per million by volume (dry, corrected to 15% O2) during natural gas firing at maximum load operation in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NOx emission at the gas turbine exhaust stack. LAER is required. Compliance with the NOx emission will be determined with the use of CEMS. The reference test method for NOx is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.5 parts per million by volume
(dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 144: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 144.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004
Process: 009

Emission Point: 00004
Emission Source: GT004

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

Item 144.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The CO emission limit is 1.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at maximum load operation in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 1.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 145: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 145.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004
Process: 009

Emission Point: 00004
Emission Source: GT004

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 145.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction. The Sulfuric Acid emission rate limit is 8.30 pounds per hour during natural gas firing at maximum load operation (Process 009) in the gas turbine (Emission Source GT004). The hourly mass emission rate for Emission Unit U-00004 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural gas = 950 Btu/scf

Sulfur emissions is 942 lbs/hr (assuming all sulfur combusted)

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.201 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine
+ emissions from CO catalyst + emissions from SCR catalyst
= E + F + G = 0.60 + 7.5 + 0.201 = 8.30 lbs/hr of Sulfuric Acid

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 8.30 pounds per hour

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 146: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 146.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-93-9

SULFURIC ACID

Item 146.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction. The Sulfuric Acid emission rate limit is 0.063 pounds per million Btu heat input during natural gas firing at maximum load operation (Process 009) in the gas turbine (Emission Source GT004). The emission rate on a per million Btu basis for Emission Unit U-00004 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stack testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heating Value of natural gas = 950 Btu/scf

E = Emission factor of Sulfuric Acid due to Gas Turbine GT004 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.201 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



$$\begin{aligned} &= E + F + G = 0.60 + 7.5 + 0.201 = 8.30 \text{ lbs/hr of} \\ \text{Sulfuric Acid} &= 8.30 \text{ lbs/hr} \times (1 \text{ hr}/131 \text{ MM Btu}) = 0.063 \\ &\text{lbs/MM Btu} \end{aligned}$$

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.063 pounds per million Btus

Reference Test Method: 40 CFR Appendix A. Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 147: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 147.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 147.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.060 pounds per million Btu during natural gas firing in the gas turbine [Processes 009 and P10], Emission Source GT004 in Emission Unit U-00004 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4. BACT is required.

The sulfur dioxide emission limit is a discrete one hour average based on definition of "natural gas" per §60.331 (u) and the maximum heat input rating of the U-00004 combustion gas turbine. Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and have a gross caloric value between 950 and 1100 Btu per standard cubic foot. The calculated upper limit of sulfur dioxide emissions, assuming 100% conversion of sulfur to sulfur dioxide, is 0.060 lb/MM Btu.

$$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$$

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu / SCF gas}) = 3.01 \text{ E-08 lbs S/Btu}$

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs S/Million Btu}$

$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide / 1 lb Sulfur}) = 0.060 \text{ lbs Sulfur Dioxide/million Btu}$

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.060 pounds per million Btus

Reference Test Method: 40 CFR 60.334 (h)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 148: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 148.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 148.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 7.5 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (100%) - Process 009 in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A,

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

The PM-10 emission limit is 10.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (Process P10) in the gas turbine (Emission Source GT004) in Emission Unit U-00004) prior to approved stack test (based on vendor's guarantee).

Parameter Monitored: PM-10

Upper Permit Limit: 7.5 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Methods 201A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 149: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 149.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 149.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 7.5 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (100%) - Process 009 in the gas turbine (Emission Source GT004) in Emission unit U-00004 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

The Particulates emission limit is 10.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



natural gas firing at maximum load operation (Process P10)
in the gas turbine (Emission Source GT004) in Emission
Unit U-00004) prior to approved stack test (based on
vendor's guarantee).

Parameter Monitored: PARTICULATES

Upper Permit Limit: 7.5 milligrams per normal cubic
meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 150: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 150.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 009

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 150.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (100 %) - Process 009 in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Manufacturer Name/Model Number: TBD
Parameter Monitored: AMMONIA
Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)
Reference Test Method: 40 CFR Appendix B and F
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 151: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 151.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004	Emission Point: 00004
Process: 011	Emission Source: GTC04

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

Item 151.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the NO_x standard for mid-size boilers burning natural gas will be met based on the duct burner (Emission Control GTC04) in Emission unit U-00004 emission guarantee of 0.1 lb/MM Btu on natural gas (Process 011). Performance will be confirmed with a Continuous Emissions Monitor (CEM) on the combined combustion gas turbine (Emission Source GT004) and duct burner (Emission Control GTC04) outlet in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.1 pounds per million Btus

Reference Test Method: EPA Method 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 152: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 152.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004 Emission Point: 00004
Process: 011 Emission Source: GTC04

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 152.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Sulfuric Acid emission limit is 0.065 lbs/MM Btu during natural gas firing in the duct burner [Process 011], Emission Control GTC04 in Emission Unit U-00004 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4. BACT is required.

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation), a catalyst section of ducting (SCR catalyst) for NOx emission reduction, and the to a duct burner (GTC04) for further NOx reduction. The Sulfuric Acid emission rate limit is 0.065 lbs/MM Btu during natural gas firing at maximum load operation in the gas turbine (Emission Source GT004) with a duct burner GTC04 (Process 011). The hourly mass emission rate for Emission Unit U-00004 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



gas = 950 Btu/scf

Duct Burner rating = 53 MM Btu/hr

Combined heat input = Gas Turbine rating + Duct Burner
rating = 184 MM Btu/hr

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO
catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR
Catalyst = 0.201 lbs/hr of H₂SO₄

D = Emission factor of Sulfuric Acid due to the Duct
Burner GTC04 = 3.66 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine
+ emissions from CO catalyst + emissions from SCR catalyst
+ emissions from duct burner = E + F + G + D = 0.60 +
7.5 + 0.201 + 3.66 = 11.96 lbs/hr of Sulfuric
Acid

Total Sulfuric Acid Emissions = 11.96 lbs/hr x [(1
hr/(131 + 53)) MM Btu = 11.96 lbs/hr x [(1 hr/(184)) MM
Btu = 0.065 lbs/MM Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.065 pounds per million Btus

Reference Test Method: 40 CFR 60.48c (g)(3)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 153: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 153.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004
Process: 011

Emission Point: 00004
Emission Source: GTC04

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 153.2:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation), a catalyst section of ducting (SCR catalyst) for NOx emission reduction, and the to a duct burner (GTC04) for further NOx reduction. The Sulfuric Acid emission rate limit is 11.96 lbs/hr during natural gas firing at maximum load operation in the gas turbine (Emission Source GT004) with a duct burner GTC04 (Process 011). The hourly mass emission rate for Emission Unit U-00004 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Duct burner rating = 53 MM Btu/hr, Heat Value of natural gas = 950 Btu/scf

Duct Burner emissions = 53 MM Btu/hr x 0.069 lbs/MM Btu of H₂SO₄ = 3.66 lb/hr H₂SO₄

Gas Turbine rating = 131 MM Btu/hr

E = Emission factor of Sulfuric Acid due to Gas Turbine

GT004 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO

catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR

Catalyst = 0.201 lbs/hr of H₂SO₄

D = Emission factor of Sulfuric Acid due to the Duct

Burner GTC04 = 3.66 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine
+ emissions from CO catalyst + emissions from SCR catalyst
+ emissions from duct burner = E + F + G + D = 0.60 +
7.5 + 0.201 + 3.66 = 11.96 lbs/hr of Sulfuric Acid

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 11.96 pounds per hour

Reference Test Method: 40 CFR 60 Appendix A, Method 8

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 154: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 154.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 011

Emission Source: GTC04

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 154.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 0.01 lb/MM Btu during natural gas firing of the Duct Burner (Emission Control GTC04) in Emission Unit U-00004 - Process 011 based on the higher heating value (HHV) of fuel. Compliance with the PM-10 emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for PM-10 is 40 CFR Part 60, Appendix A, Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PM-10

Upper Permit Limit: 0.01 pounds per million Btus

Reference Test Method: 40 CFR Appendix A, Methods 201A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 155: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 155.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 011

Emission Source: GTC04

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):

CAS No: 000000-00-00 PARTICULATES

Item 155.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 0.01 lb/MM Btu during natural gas firing of the Duct Burner (Emission Control GTC04) in Emission Unit U-00004 - Process 011 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.01 pounds per million Btus

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 156: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 156.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 011

Emission Source: GTC04

Regulated Contaminant(s):

CAS No: 0007664-41-7 AMMONIA

Item 156.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing of the Duct Burner (Emission Control GTC04) in Emission Unit U-00004 - Process 011 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



(SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 157: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.42b(k)(2), NSPS Subpart Db

Item 157.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 011

Emission Source: GTC04

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 157.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.060 pounds per million Btu during natural gas firing in the duct burner [Process 011], Emission Control GTC04 in Emission Unit U-00004 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The sulfur dioxide emission limit is a discrete one hour average based on definition of "natural gas" per §60.331 (u) and the maximum heat input rating of the U-00004 combustion gas turbine. Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and have a gross caloric value between 950 and 1100 Btu per standard cubic foot. The calculated upper limit of sulfur dioxide emissions, assuming 100% conversion of sulfur to sulfur dioxide, is 0.060 lbs/MM Btus.

$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$
lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1$
lb Sulfur) = 0.06 lbs Sulfur Dioxide/million Btu

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.060 pounds per million Btus

Reference Test Method: 40 CFR 60.48c (g)(3)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 158: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.45b(k), NSPS Subpart Db

Item 158.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: 011

Emission Source: GTC04

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 158.2:

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Compliance with the Sulfur Dioxide emission limit for the duct burner (Emission Control GTC04) will be by maintaining records of the natural gas sulfur content (20 grains per 100 dscf of natural gas or less) in accordance with 40 CFR 60.45b(k).

$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$
lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

Sulfur Dioxide emission limit = $(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1 \text{ lb Sulfur}) = 0.06 \text{ lbs}$
Sulfur Dioxide/million Btu

Regulation 40 CFR 60.45b, NSPS Subpart Db pertains to compliance & performance test methods for SO₂. Emission standards of 40 CFR 60.42b, NSPS Subpart Db apply at all times and [40 CFR 60.45b(k), NSPS Subpart Db] to demonstrate compliance with 40 CFR 60.45b(k)(2), NSPS Subpart Db, the procedures of 40 CFR 60.49b(r), NSPS Subpart Db must be followed. Regulation 40 CFR 60.49b(r), NSPS Subpart Db allows the facility to demonstrate compliance of SO₂ emissions through fuel based compliance alternatives.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.03 pounds per million Btus

Reference Test Method: 40 CFR 60.334(h)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 159: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.49b(r), NSPS Subpart Db

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 159.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00004
Process: 011

Emission Point: 00004
Emission Source: GTC04

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GTC06

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

Item 159.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator who elects to demonstrate that the affected facility combusts only very low sulfur oil shall obtain and maintain at the facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined 40CFR60.41b. For the purposes of this requirement, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Semiannual reports shall be submitted to the Administrator certifying that only very low sulfur oil was combusted in the affected facility during the preceding semiannual period.

Monitoring Frequency: PER DELIVERY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 160: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 160.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004
Process: P10

Emission Point: 00004
Emission Source: GT004

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

Item 160.2:

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the NO_x standard of 42 parts per million by volume (dry, corrected to 15% O₂) on natural gas for the Siemens Model 400-GT combustion turbine (Emission Source GT004) with maximum heat input rating of 110.6 MM Btu/hr at 70 % load (Process P10) will be met based on the combustion turbine emission guarantee of 3.5 parts per million by volume (dry, corrected to 15% O₂) on natural gas. Performance will be confirmed with a Continuous Emissions Monitor (CEM) on the combustion gas turbine (Emission Source GT004) outlet in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 3.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: EPA Method 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 161: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 161.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: P10

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 161.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



operation on natural gas. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.

Manufacturer Name/Model Number: TBD

Parameter Monitored: VOC

Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A, Method 18/25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 162: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 162.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: P10

Emission Source: GT004

Regulated Contaminant(s):

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

Item 162.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NO_x emission limit is 3.5 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NO_x emission at the gas turbine exhaust stack. LAER is required. Compliance with the NO_x emission will be determined with the use of CEMS. The reference test method for NO_x is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 3.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Averaging Method: 3-HOUR BLOCK AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 163: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 163.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004	Emission Point: 00004
Process: P10	Emission Source: GT004

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

Item 163.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The CO emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) in the gas turbine (Emission Source GT004) based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 164: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 164.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: P10

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 164.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 5.81 pounds per hour during natural gas firing at 70% of the maximum load operation (Process P10) in the gas turbine (Emission Source GT004). The hourly mass emission rate for Emission Unit U-00004 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, 70% of the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stack testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural gas = 950 Btu/scf

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO
catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR
Catalyst = 0.201 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine
+ emissions from CO catalyst + emissions from SCR catalyst
= E + F + G = 0.60 + 7.5 + 0.201 = 8.30 lbs/hr of
Sulfuric Acid

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emissions at 70% load (Process P10) = 8.30 lbs/hr of
Sulfuric Acid x 0.70 = 5.81 lbs/hr of Sulfuric Acid

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 5.81 pounds per hour

Reference Test Method: 40 CFR Appendix A, method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 165: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 165.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: P10

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 165.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00004 is a gas turbine (GT004) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 0.063 pounds per million Btu heat input during natural gas firing at 70% of the maximum load operation (Process P10) in the gas turbine (Emission Source GT004). The emission rate on a per million Btu basis for Emission Unit U-00004 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine. BACT is required.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stack testing will be based upon an approved protocol by the Department.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Gas Turbine rating = 131 MM Btu/hr, Heating Value of the natural gas = 950 Btu/scf

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.201 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst
= E + F + G = 0.60 + 7.5 + 0.201 = 8.30 lbs/hr of Sulfuric Acid = 8.30 lbs/hr x (1 hr/131 MM Btu) = 0.063 lbs/MM Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.063 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 166: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 166.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: P10

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 166.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process P10 in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A,

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PM-10

Upper Permit Limit: 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Methods 201A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 167: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 167.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: P10

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 000000-00-0 PARTICULATES

Item 167.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process P10 in the gas turbine (Emission Source GT004) in Emission unit u-00004 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 168: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 168.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004
Process: P10

Emission Point: 00004
Emission Source: GT004

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

Item 168.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The Sulfur Dioxide emission limit is 0.06 pounds per million BTUs during natural gas firing at minimum load operation (70 %) - Process P10 in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Compliance with the Sulfur Dioxide emission limit will be determined based on fuel firing rate and Sulfur Dioxide emission factor (0.06 lbs/MM Btu). BACT is required.

Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and have a gross caloric value between 950 and 1100 Btu per standard cubic foot. The calculated upper limit of sulfur dioxide emissions, assuming 100% conversion of sulfur to sulfur dioxide, is 0.060 lb/MM Btu.

$$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285 \text{ lbs S per SCF gas}$$

$$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01 \text{ E-08 lbs S/Btu}$$

$$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs S/Million Btu}$$

$$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1 \text{ lb Sulfur}) = 0.060 \text{ lbs Sulfur Dioxide/million Btu}$$

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.06 pounds per million Btus

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Reference Test Method: 40 CFR GG.335 Method

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 169: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 169.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00004

Emission Point: 00004

Process: P10

Emission Source: GT004

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 169.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process P10 in the gas turbine (Emission Source GT004) in Emission Unit U-00004 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Reference Test Method: 40 CFR Appendix B and F
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 170: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 225-1.2

Item 170.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006 Emission Point: 00006

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

Item 170.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Riverbay Co-Op City will use distillate fuel oil with a sulfur limit of 15.0 ppm by weight. The sulfur content will be certified by the fuel oil supplier with each delivery to the bulk storage tank, in accordance with 40 CFR 75, Appendix D, Section 2.2.1.2 and 40 CFR 60, section 334 (i)(1). A SO₂ monitor will not be required.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2014.

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

Condition 171: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 171.1:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 171.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

Manufacturer Name/Model Number: COMS - Durag Model DR-290

Parameter Monitored: OPACITY

Upper Permit Limit: 27 percent

Reference Test Method: 40 CFR 60 Appendix A , Method 9

Monitoring Frequency: CONTINUOUS

Averaging Method: ONE CONTINUOUS 6-MINUTE PERIOD PER HOUR

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 172: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 172.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Item 172.2:

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 utilizing a continuous opacity monitor (COM).

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 173: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-1.3 (b)

Item 173.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006 Emission Point: 00006

Regulated Contaminant(s):
CAS No: 000000-00-0 PARTICULATES

Item 173.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the opacity limit is demonstrated with a
Continuous Opacity Monitor System (COMS) in accordance with
40 CFR Part 60, Appendix A.

Manufacturer Name/Model Number: COMS - Durag Model DR-290

Parameter Monitored: OPACITY

Upper Permit Limit: 27 percent

Reference Test Method: 40 CFR 60 Appendix A, Method 9

Monitoring Frequency: CONTINUOUS

Averaging Method: ONE CONTINUOUS 6-MINUTE PERIOD PER
HOUR

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 174: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-1.3 (b)

Item 174.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006 Emission Point: 00006

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

Item 174.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the opacity limit is demonstrated with a
Continuous Opacity Monitor System (COMS) in accordance with
40 CFR Part 60, Appendix A.

Manufacturer Name/Model Number: COMS - Durag Model DR-290

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: 40 CFR 60 Appendix A, Method 9

Monitoring Frequency: CONTINUOUS

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 10/30/2013.

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

Condition 175: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 175.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006 Emission Point: 00006

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

Item 175.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Oxides of nitrogen emissions from the combustion gas
turbine (Emission Source GT006) in emission Unit U-00006
burning distillate oil will comply with 6 NYCRR 227-2.4(e)
limit of 65.0 ppmvd @ 15% O₂ for combustion turbines.
Compliance is demonstrated with a Continuous Emission
Monitor (CEMs) in accordance with 40 CFR Part 60 Appendix
A.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 65.0 parts per million by volume
(dry, corrected to 15% O₂)
Reference Test Method: 40 CFR 60 Appendix A, Method 7E
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 176: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 176.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

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

Item 176.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Oxides of nitrogen emissions from the combustion gas turbine (Emission Source GT006) in Emission Unit U-00006 burning natural gas will comply with the limit of 42.0 ppmvd @ 15% O₂ in accordance with 6 NYCRR 227-2.4(e) for combustion turbines. Compliance is demonstrated with a Continuous Emissions Monitor (CEMs) in accordance with 40 CFR Part 60 Appendix A.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 42.0 parts per million by volume
(dry, corrected to 15% O₂)

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

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 177: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Applicable Federal Requirement:6 NYCRR 231-2.7 (b)

Item 177.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

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

Item 177.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Oxides of Nitrogen emissions in pounds per hour during start-up and shut-down on natural gas, in order to establish an emission limit in pounds per hour for the combustion turbine operations (Emission Source GT006) in Emission Unit U-00006. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 178: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 231-2.7 (b)

Item 178.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

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

Item 178.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Oxides of Nitrogen emissions in pounds per hour during start-up and shut-down

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



on distillate fuel oil, in order to establish an emission limit in pounds per hour for the combustion turbine operations (Emission Source GT006) in Emission Unit U-00006. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 179: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 179.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 179.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Carbon Monoxide emissions in pounds per hour during start-up and shut-down on natural gas, in order to establish an emission limit in pounds per hour for the combustion turbine operations (Emission Source GT006) in Emission Unit U-00006. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 180: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Applicable Federal Requirement:6 NYCRR 231-2.7 (b)

Item 180.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 180.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Carbon Monoxide emissions in pounds per hour during start-up and shut-down on distillate oil, in order to establish an emission limit in pounds per hour for the combustion turbine operations (Emission Source GT006) in Emission Unit U-00006. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 181: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 181.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 181.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The Sulfur Dioxide emission limit is 0.060 pounds per million Btu during natural gas firing in the gas turbine [Processes 014 and 015], Emission Source GT006 in Emission Unit U-00006 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4.

The sulfur dioxide emission limit is a discrete one hour average based on definition of "natural gas" per §60.331 (u) and the maximum heat input rating of the U-00006 combustion gas turbine. Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and have a gross caloric value between 950 and 1100 Btu per standard cubic foot. The calculated upper limit of sulfur dioxide emissions, assuming 100% conversion of sulfur to sulfur dioxide, is 0.060 lb/MM Btu.

$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$
lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1$
lb Sulfur) = 0.060 lbs Sulfur Dioxide/million Btu

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.060 pounds per million Btus

Reference Test Method: 40 CFR 60.334(h)

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: 1 HOUR MAXIMUM - NOT TO BE EXCEEDED AT
ANY TIME

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2014.

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

Condition 182: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 182.1:

The Compliance Certification activity will be performed for:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 182.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Riverbay Co-Op City will use distillate oil with a sulfur limit of 15.0 ppm by weight to be certified by the distillate fuel oil supplier for each delivery to the bulk storage tank, in accordance with 40 CFR 75, Appendix D, Section 2.2.1.2 and 40 CFR Part 60, 334 (i)(1).

The sulfur dioxide emission limit is a discrete one hour average based on the continuous recording of distillate oil usage, with heat input corresponding to the higher heating value of the fuel. Compliance will be determined by fuel oil sulfur certification of less than 15.0 ppm Sulfur provided by supplier with each delivery. Facility gas turbine (Emission Source GT004 & GT006) fuel oil operation is limited to 3,460 total hours/year.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Reference Test Method: 40 CFR 60.335 Method

Monitoring Frequency: PER DELIVERY

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 4/30/2014.

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

Condition 183: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(b), NSPS Subpart GG

Item 183.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 0NY210-00-0

OXIDES OF NITROGEN

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 183.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A NOx CEMS is used to demonstrate compliance with 40 CFR 60, Subpart GG, section 332 (a)(1) in accordance with the certification requirements of 40 CFR 60.334 (b), including Appendices B and F, and 40 CFR 75. The NOx emissions limit is 6.0 parts per million by volume (dry, corrected to 15% O₂).

Riverbay Co-Op City will employ a NOx CEM as an alternative for monitoring and reporting excess emissions.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 184: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(c), NSPS Subpart GG

Item 184.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

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

Item 184.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Riverbay Co-Op City will employ a NOx CEM as an alternative for monitoring and reporting excess emissions.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 185: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 60.334(c)(1), NSPS Subpart GG

Item 185.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

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

Item 185.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A NO_x CEMS is used to demonstrate compliance with NO_x emission limits of 75.0 ppmvd @ 15% O₂ burning natural gas under Subpart GG in accordance with the certification requirements of 40 CFR 60 and 40 CFR 75. The permit emission limit is 3.5 ppmvd @ 15% O₂ under normal operating conditions firing natural gas at 70 % load (Process 015).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 3.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 186: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Applicable Federal Requirement: 40CFR 60.334(c)(1), NSPS Subpart GG

Item 186.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

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

Item 186.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A NO_x CEMS is used to demonstrate compliance with NO_x emission limits of 75.0 ppmvd @ 15% O₂ burning natural gas under Subpart GG in accordance with the certification requirements of 40 CFR 60 and 40 CFR 75. The permit emission limit is 2.5 ppmvd @ 15% O₂ under normal operating conditions firing natural gas at 100% load (Process 014).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 187: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(c)(1), NSPS Subpart GG

Item 187.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

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

Item 187.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Description:

A NO_x CEMS is used to demonstrate compliance with NO_x emission limits of 75.0 ppmvd @ 15% O₂ burning distillate oil under Subpart GG in accordance with the certification requirements of 40 CFR 60 and 40 CFR 75. The permit emission limit is 6.0 ppmvd @ 15% O₂ under normal operating conditions firing distillate fuel oil from 70% to 100% load.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 188: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 60.334(h)(3), NSPS Subpart GG

Item 188.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 188.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The natural gas combusted at the facility meets definition of "natural gas" per §60.331 (u). Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and a gross caloric value between 950 and 1100 Btu per standard cubic foot. As a result, sulfur dioxide emissions will be calculated using 0.060 lb/MMBtu, in accordance with 40 CFR 75, appendix D, Section 2.3.1.1. Riverbay Co-Op will monitor the monthly sulfur content data from Consolidated Edison.

$$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$$

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu / SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

Sulfur Dioxide emission limit = $(0.0301 \text{ lbs S/Million Btu})$
 $\times (2 \text{ lbs Sulfur Dioxide / 1 lb Sulfur}) = 0.060 \text{ lbs}$
Sulfur Dioxide/million Btu

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 20 grains per 100 dscf

Reference Test Method: 40 CFR 60.334(h)

Monitoring Frequency: MONTHLY

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 4/30/2014.

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

Condition 189: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.334(i)(1), NSPS Subpart GG

Item 189.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 189.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Riverbay Co-Op City is proposing a distillate fuel oil
sulfur limit of 15.0 ppm by weight to be certified by the
fuel supplier with each delivery, in accordance with 40
CFR Part 75, Appendix D, Section 2.2.1.2 and 40 CFR Part
60, 334(i)(1).

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 15.0 parts per million by weight
Reference Test Method: 40 CFR 60.335 Method
Monitoring Frequency: PER DELIVERY
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 4/30/2014.
Subsequent reports are due every 12 calendar month(s).

Condition 190: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 190.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006	Emission Point: 00006
Process: 012	Emission Source: GT006

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

Item 190.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC
Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)
Reference Test Method: 40 CFR 60 Appendix A Method 18/25A
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 191: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 231-2.7 (b)

Item 191.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006
Process: 012

Emission Point: 00006
Emission Source: GT006

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

Item 191.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NOx emission limit is 6.0 parts per million by volume (dry, corrected to 15% O2) during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NOx emission at the gas turbine exhaust stack. LAER is required. Compliance with the NOx emission will be determined with the use of CEMS. The reference test method for NOx is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 192: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 231-2.7 (b)

Item 192.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006
Process: 012

Emission Point: 00006
Emission Source: GT006

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 192.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The CO emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 193: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 193.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 012

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 193.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction. The Sulfuric Acid emission rate limit is 0.212 pounds per hour during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006). The hourly mass emission rate for Emission Unit U-00006 is based on the maximum sulfur content of the distillate oil (15 parts per million by weight) or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the combustion turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

A = Emission factor of Sulfuric Acid due to Gas Turbine
GT006 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO catalyst = 0.190956 lbs/hr of H₂SO₄

C = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst =
 $A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212$
lbs/hr of Sulfuric Acid

Upper Permit Limit: 0.212 pounds per hour

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 194: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 194.1:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 012

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-93-9

SULFURIC ACID

Item 194.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction. The Sulfuric Acid emission rate limit is 0.00161 pounds per million Btu heat input during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006). The emission rate on a per million Btu basis for Emission Unit U-00004 is based on the maximum sulfur content of the distillate oil (15 parts per million by weight), or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the combustion turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

A = Emission factor of Sulfuric Acid due to Gas Turbine GT006 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO catalyst = 0.190956 lbs/hr of H₂SO₄

C = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst =
 $A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212$

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



lbs/hr of Sulfuric Acid

$$(0.212 \text{ lbs/hr of Sulfuric Acid}) / (131 \text{ MM Btus/hr}) =$$

0.00161 pounds per million Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.00161 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 195: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 195.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 012

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 195.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.3 parts per million by volume (dry, corrected to 15% O₂) or 0.19 lb/hr during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Compliance with the Sulfur Dioxide emissions limit will be determined based on fuel firing rate and % sulfur analysis in the fuel oil (maximum 15.0 ppm sulfur). BACT is required.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15.0 parts per million by weight

Reference Test Method: 40 CFR 60.335 Method

Monitoring Frequency: PER DELIVERY

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 196: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 196.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006 Emission Point: 00006
Process: 012 Emission Source: GT006

Regulated Contaminant(s):
CAS No: 0NY075-00-5 PM-10

Item 196.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit of 15.0 milligrams per cubic meter for distillate oil firing at maximum load (Process 012) is a discrete one hour average based on the heat input corresponding to the higher heating value of the fuel. Compliance with the PM-10 emission will be determined with a one time stack test within 6 months of initial operation of the combustion turbine (Emission Source GT006) on distillate oil in Emission Unit U-00006. The reference test method for PM-10 is 40 CFR Part 60, Appendix A, Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

The PM-10 emission limit is 25.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006) prior to approved stack test (based on vendor's guarantee).

Parameter Monitored: PM-10

Upper Permit Limit: 15.0 milligrams per cubic meter

Reference Test Method: 40 CFR 60 Appendix A, Methods 201A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 197: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 197.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 012

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 197.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

The Particulates emission limit is 25.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 prior to approved stack test (based on vendor's guarantee).

Parameter Monitored: PARTICULATES

Upper Permit Limit: 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 198: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 198.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006
Process: 012

Emission Point: 00006
Emission Source: GT006

Regulated Contaminant(s):
CAS No: 007664-41-7 AMMONIA

Item 198.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at maximum load operation (Process 012) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 199: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 199.1:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

Regulated Contaminant(s):

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

Item 199.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Oxides of Nitrogen emissions in pounds per hour during start-up and shut-down on distillate fuel oil, in order to establish an emissions limit in pounds per hour for the combustion turbine (Emission Source GT006) operations in Emission Unit U-00006. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 200: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 200.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 200.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Records will be maintained of Carbon Monoxide emissions in pounds per hour during start-up and shut-down on distillate fuel oil, in order to establish an emissions limit in pounds per hour for the combustion turbine

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



(Emission Source GT006) operations in Emission Unit U-00006. A CEMS is used to monitor emissions at the gas turbine exhaust stack. The emission limit will apply during start-up and shut-down below 70 % load.

Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 201: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 201.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006	Emission Point: 00006
Process: 013	Emission Source: GT006

Regulated Contaminant(s):
CAS No: 000000-00-0 VOC

Item 201.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 013 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A Method 18/25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 202: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 202.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

Regulated Contaminant(s):

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

Item 202.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NOx emission limit is 6.0 parts per million by volume (dry, corrected to 15% O2) during distillate oil firing at minimum load operation (70 %) - Process 013 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NOx emission at the gas turbine exhaust stack. LAER is required. Compliance with the NOx emission will be determined with the use of CEMS. The reference test method for NOx is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume
(dry, corrected to 15% O2)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 203: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 203.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Process: 013

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 203.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The CO emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 013 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 204: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 204.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 204.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 0.00161 pounds per million Btu heat input during distillate oil firing at 70% load operation (Process 013) in the gas turbine (Emission Source GT006). The emission rate on a per million Btu basis for Emission Unit U-00006 is based on the maximum sulfur content of the distillate oil (15 parts per million by weight), or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

A = Emission factor of Sulfuric Acid due to Gas Turbine
GT006 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO catalyst = 0.190956 lbs/hr of H₂SO₄

C = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst =
A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212 lbs/hr of Sulfuric Acid

(0.212 lbs/hr of Sulfuric Acid) / (131 MM Btus/hr) =
0.00161 pounds per million Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.00161 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 205: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 205.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 205.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 0.148 pounds per hour during distillate oil firing at 70% load operation (Process 013) in the gas turbine (Emission Source GT006). The hourly mass emission rate for Emission Unit U-00006 is based on the maximum sulfur content of the distillate oil (15 parts per million by weight) or 0.000015 lbs S per lb of fuel oil, the maximum heat input rating of the combustion turbine, and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Distillate fuel oil consumption = 942 gal/hr at 100% load

Gas Turbine rating = 131 MM Btu/hr, Sulfur emission rate is 0.100976 lbs/hr (assuming all sulfur combusted)

A = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.015462 lbs/hr of H₂SO₄

B = Emission factor of Sulfuric Acid due to the CO catalyst = 0.190956 lbs/hr of H₂SO₄

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



C = Emission factor of Sulfuric Acid due to the SCR
Catalyst = 0.0051 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine +
emissions from CO catalyst + emissions from SCR catalyst =
A + B + C = 0.015462 + 0.190956 + 0.0051 = 0.212
lbs/hr of Sulfuric Acid

Sulfuric Acid Emissions at 70% load = 0.212 lbs/hr x
0.70 = 0.148 lbs/hr of H₂SO₄

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.148 pounds per hour

Reference Test Method: 40 CFR Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 206: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 206.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 206.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.3 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 013 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Compliance with the Sulfur Dioxide emission will be determined based on fuel firing rate and % sulfur analysis in the fuel oil (maximum 15.0 ppm sulfur). The reference test method is as per 40 CFR 60.335. BACT is required.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 15.0 parts per million by weight
Reference Test Method: 40 CFR 60.335 Method
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 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 207: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 207.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006	Emission Point: 00006
Process: 013	Emission Source: GT006

Regulated Contaminant(s):
CAS No: 0NY075-00-5 PM-10

Item 207.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 013 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PM-10
Upper Permit Limit: 30.0 milligrams per normal cubic
meter (dry, corrected to 15% O₂)
Reference Test Method: 40 CFR Appendix A, Methods 201A and 202
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 208: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 208.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 208.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 013 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on distillate oil. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 30.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 209: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 209.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 013

Emission Source: GT006

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 209.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during distillate oil firing at minimum load operation (70 %) - Process 013 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 210: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 210.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 014

Emission Source: GT006

Regulated Contaminant(s):

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

Item 210.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the NO_x standard of 42 parts per million by volume (dry, corrected to 15% O₂) on natural gas for the Siemens Model 400-GT combustion turbine (Emission Source GT006) with maximum heat input rating of 139.6 MM Btu/hr at 100 % load (Process 014) will be met based on the combustion turbine emission guarantee of 2.5 parts per million by volume (dry, corrected to 15% O₂) on natural gas. Performance will be confirmed with a Continuous Emissions Monitor (CEM) on the combustion gas turbine (Emission Source GT006) outlet in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.5 parts per million by volume
(dry, corrected to 15% O₂)

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

Monitoring Frequency: CONTINUOUS

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 211: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 211.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 014

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 211.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 2.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



maximum load operation (Process 014) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.

Manufacturer Name/Model Number: TBD

Parameter Monitored: VOC

Upper Permit Limit: 2.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A, Method 18/25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 212: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 212.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 014

Emission Source: GT006

Regulated Contaminant(s):

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

Item 212.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NO_x emission limit is 2.5 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at maximum load (Process 014) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NO_x emission at the gas turbine exhaust stack. LAER is required. Compliance with the NO_x emission will be determined with the use of CEMS. The reference test method for NO_x is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 213: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 213.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 014

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 000630-08-0

CARBON MONOXIDE

Item 213.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The CO emission limit is 1.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (Process 014) in the gas turbine (Emission Source GT006) in Emission Unit u-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 1.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

Condition 214: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 214.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006 Emission Point: 00006
Process: 014 Emission Source: GT006

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

Item 214.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.060 pounds per million Btu during natural gas firing in the gas turbine [Processes 014 and 015], Emission Source GT006 in Emission Unit U-00006 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4.

The sulfur dioxide emission limit is a discrete one hour average based on definition of "natural gas" per §60.331 (u) and the maximum heat input rating of the U-00006 combustion gas turbine. Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and have a gross caloric value between 950 and 1100 Btu per standard cubic foot. The calculated upper limit of sulfur dioxide emissions, assuming 100% conversion of sulfur to sulfur dioxide, is 0.060 lb/MM Btu.

$(20 \text{ grains S} / 100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$
lbs S per SCF gas

$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu} / \text{SCF gas}) = 3.01$
E-08 lbs S/Btu

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs}$
S/Million Btu

$(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide} / 1$

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



lb Sulfur) = 0.060 lbs Sulfur Dioxide/million Btu

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.060 pounds per million Btus

Reference Test Method: 40 CFR 60.334 (h)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 215: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 215.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 014

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 215.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction and the to a duct burner (GTC06) for further NOx reduction. The Sulfuric Acid emission rate limit is 0.063 pounds per million Btu heat input during natural gas firing at maximum load operation (Process 014) in the gas turbine (Emission Source GT006) with a duct burner GTC04 (Process 016). The emission rate on a per million Btu basis for Emission Unit U-00006 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stack testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural gas = 950 Btu/scf

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT006 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.201 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine
+ emissions from CO catalyst + emissions from SCR catalyst
+ emissions from duct burner = E + F + G = 0.60 + 7.5 + 0.201 = 8.30 lbs/hr of Sulfuric Acid

Total Sulfuric Acid Emissions = 8.30 lbs/hr x (1 hr/(131) MM Btu = 0.063 lbs/MM Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.063 pounds per million Btus

Reference Test Method: 40 CFR Appendix A. Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 216: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 216.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006
Process: 014

Emission Point: 00006
Emission Source: GT006

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 216.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 8.30 pounds per hour during natural gas firing at maximum load operation (Process 014) in the gas turbine (Emission Source GT006). The hourly mass emission rate for Emission Unit U-00006 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stack testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural gas = 950 Btu/scf

E = Emission factor of Sulfuric Acid due to Gas Turbine GT006 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.201 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst =
 $E + F + G = 0.60 + 7.5 + 0.201 = 8.30$ lbs/hr of Sulfuric Acid

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 8.30 pounds per hour

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 217: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 217.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006
Process: 014

Emission Point: 00006
Emission Source: GT006

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Regulated Contaminant(s):
CAS No: 0NY075-00-5 PM-10

Item 217.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 7.5 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (Process 014) in the gas turbine (Emission Source GT006) in Emission Unit U-00006) based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Methods 201 A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

The PM-10 emission limit is 10.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (Process 014) in the gas turbine (Emission Source GT006) in Emission Unit U-00006) prior to approved stack test (based on vendor's guarantee).

Parameter Monitored: PM-10

Upper Permit Limit: 7.5 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Methods 201 A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 218: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 218.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006 Emission Point: 00006
Process: 014 Emission Source: GT006

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

Item 218.2:

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 7.5 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (Process 014) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

The Particulates emission limit is 10.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (Process 014) in the gas turbine (Emission Source GT006) in Emission Unit U-00006 prior to approved stack test (based on vendor's guarantee).

Parameter Monitored: PARTICULATES

Upper Permit Limit: 7.5 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 219: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 219.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 014

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 219.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at maximum load operation (100 %) -

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Process 014 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NOx and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH3 emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O2)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 220: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 227-2.6 (b)

Item 220.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

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

Item 220.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the NOx standard of 42 parts per million by volume (dry, corrected to 15% O2) for the Siemens Model 400-GT combustion turbine (Emission Source GT004) with maximum heat input rating of 110.6 MM Btu/hr at 70 % load

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



(Process 015) will be met based on the combustion turbine emission guarantee of 3.5 parts per million by volume (dry, corrected to 15% O₂) on natural gas. Performance will be confirmed with a Continuous Emissions Monitor (CEM) on the combustion gas turbine (Emission Source GT004) outlet in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 3.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: EPA Method 7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 221: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 221.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 000000-00-0 VOC

Item 221.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The VOC emission limit is 5.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process 015 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel.

Compliance with the VOC emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for methane) and Method 25A (for total hydrocarbon). The averaging method is for the reference test method is 1-hour average. LAER is required.



New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038

Manufacturer Name/Model Number: TBD

Parameter Monitored: VOC

Upper Permit Limit: 5.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix A, Method 18/25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 222: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 222.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

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

Item 222.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The NO_x emission limit is 3.5 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process 015 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the high heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor NO_x emission at the gas turbine (Emission Source GT006) exhaust stack. LAER is required. Compliance with the NO_x emission will be determined with the use of CEMS. The reference test method for NO_x is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 3-hour block average.

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 3.5 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 223: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)

Item 223.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 223.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The CO emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process 015 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp - Co-Op City will use CEMS to monitor CO emission at the gas turbine exhaust stack. LAER is required. Compliance with the CO emission will be determined with the use of CEMS. The reference test method for CO is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: CEMS - Thermo Environmental Model 48i

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR 60 Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 224: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 224.1:

The Compliance Certification activity will be performed for:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Emission Unit: U-00006
Process: 015

Emission Point: 00006
Emission Source: GT006

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 224.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NO_x emission reduction. The Sulfuric Acid emission rate limit is 5.81 pounds per hour during natural gas firing at 70% of the maximum load operation (Process 015) in the gas turbine (Emission Source GT006). The hourly mass emission rate for Emission Unit U-00006 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, 70% of the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stack testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural gas is 950 Btu/scf

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT006 = 0.60 bs/hr of H₂SO₄
F = Emission factor of Sulfuric Acid due to the CO
catalyst = 7.5 lbs/hr of H₂SO₄
G = Emission factor of Sulfuric Acid due to the SCR
Catalyst = 0.201 lbs/hr of H₂SO₄

Sulfuric Acid Emissions = emissions from gas turbine +
emissions from CO catalyst + emissions from SCR catalyst =
E + F + G = 0.60 + 7.5 + 0.201 = 8.30 lbs/hr of
Sulfuric Acid

Emissions for at 70% load (Process P10) = 8.30 lbs/hr of
Sulfuric Acid x 0.70 = 5.81 lbs/hr of Sulfuric Acid

Parameter Monitored: SULFURIC ACID

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Upper Permit Limit: 5.81 pounds per hour

Reference Test Method: 40 CFR Appendix A, method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 225: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 225.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-93-9 SULFURIC ACID

Item 225.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation) and a catalyst section of ducting (SCR catalyst) for NOx emission reduction. The Sulfuric Acid emission rate limit is 0.063 pounds per million Btu heat input during natural gas firing at 70% of the maximum load operation (Process 015) in the gas turbine (Emission Source GT006). The emission rate on a per million Btu basis for Emission Unit U-00006 is based on the maximum sulfur content of the distillate oil (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stack testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural gas = 950 Btu/scf

Combined heat input = Gas Turbine rating + Duct Burner

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



$$\text{rating} = 131 + 53 = 184 \text{ MM Btu/hr}$$

E = Emission factor of Sulfuric Acid due to Gas Turbine

GT006 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO

catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR

Catalyst = 0.201 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine
+ emissions from CO catalyst + emissions from SCR catalyst
= E + F + G = 0.60 + 7.5 + 0.201 = 8.30 lbs/hr of
Sulfuric Acid

Total Sulfuric Acid Emissions = 8.30 lbs/hr x (1 hr/131
MM Btu) = 0.063 lbs/MM Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.063 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 226: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 226.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 226.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process 015 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



method for Particulates is 40 CFR Part 60, Appendix A, Methods 201 A and 202. The averaging method is for the reference test method is as per 40 CFR GG.335 Method. BACT is required.

Parameter Monitored: PM-10

Upper Permit Limit: 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Methods 201 A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 227: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 227.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 000000-00-0 PARTICULATES

Item 227.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process 015 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 15.0 milligrams per normal cubic meter (dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 228: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 228.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 015

Emission Source: GT006

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 228.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing at minimum load operation (70 %) - Process 015 in the gas turbine (Emission Source GT006) in Emission Unit U-00006 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

Parameter Monitored: AMMONIA

Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)

Reference Test Method: 40 CFR Appendix B and F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

Condition 229: Compliance Certification

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:6 NYCRR 227-2.6 (b)

Item 229.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GTC06

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

Item 229.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Compliance with the NO_x standard for mid-size boilers burning gas will be met based on the duct burner (Emission Control GTC06) in Emission Unit U-00006 emission guarantee of 0.1 lb/MMBtu on natural gas (Process 016). Performance will be confirmed with a Continuous Emissions Monitor (CEM) on the combined combustion gas turbine (Emission Source GT006) and duct burner (Emission Control GTC06) outlet in accordance with 6 NYCRR 227-2.6(a)(2) and (b).

Manufacturer Name/Model Number: CEMS - California Analytical Model 650

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.1 pounds per million Btus

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

Monitoring Frequency: CONTINUOUS

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2013.

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

Condition 230: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 230.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006
Process: 016

Emission Point: 00006
Emission Source: GTC06

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 230.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Sulfuric Acid emission limit is 11.96 pounds per hour during natural gas firing in the duct burner [Process 016], Emission Control GTC06 in Emission Unit U-00006 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4.

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation), a catalyst section of ducting (SCR catalyst) for NOx emission reduction, and the to a duct burner (GTC06) for further NOx reduction. The Sulfuric Acid emission rate limit is 11.96 pounds per hour during natural gas firing at maximum load operation in the gas turbine (Emission Source GT006) with a duct burner GTC06 (Process 016). The hourly mass emission rate for Emission Unit U-00006 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Duct burner rating = 53 MM Btu/hr

Duct Burner emissions (Process 014) = 53 MM Btu/hr x
0.069 lbs/MM Btu of H₂SO₄ = 3.66 lb/hr H₂SO₄

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural
gas = 950 Btu/scf

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT006 = 0.60 bs/hr of H₂SO₄

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



F = Emission factor of Sulfuric Acid due to the CO catalyst = 7.5 lbs/hr of H₂SO₄
G = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.201 lbs/hr of H₂SO₄
D = Emission factor of Sulfuric Acid due to the Duct Burner GTC06 = 3.66 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine
+ emissions from CO catalyst + emissions from SCR catalyst
+ emissions from duct burner = E + F + G + D = 0.60 +
7.5 + 0.201 + 3.66 = 11.96 lbs/hr of Sulfuric Acid

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 11.96 pounds per hour

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 231: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 231.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 016

Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 007664-93-9

SULFURIC ACID

Item 231.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Unit U-00006 is a gas turbine (GT006) connected downstream to a catalyst section of ducting for carbon monoxide emission reduction (CO oxidation), a catalyst section of ducting (SCR catalyst) for NO_x emission reduction, and the to a duct burner (GTC06) for further NO_x reduction. The Sulfuric Acid emission rate limit is 0.065 lbs/MM Btu during natural gas firing at maximum load operation in the gas turbine (Emission Source GT006) with a duct burner GTC06 (Process 016). The hourly mass emission rate for Emission Unit U-00006 is based on the maximum sulfur content of the natural gas (20 grains per 100 SCF), or 3.940 lbs S /hr, the maximum heat input rating of the gas turbine and expected conversion of sulfur dioxide to sulfur trioxide in the combustion

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



turbine and the CO and SCR catalysts downstream of the combustion turbine.

Compliance with the Sulfuric Acid emission rate will be determined with a onetime stack test within 6 months of initial operation when firing distillate oil. Stacking testing will be based upon an approved protocol by the Department.

Gas Turbine rating = 131 MM Btu/hr, Heat Value of natural gas = 950 Btu/scf

Duct Burner rating = 53 MM Btu/hr

Combined heat input = Gas Turbine rating + Duct Burner rating = 131 + 53 = 184 MM Btu/hr

E = Emission factor of Sulfuric Acid due to Gas Turbine
GT004 = 0.60 bs/hr of H₂SO₄

F = Emission factor of Sulfuric Acid due to the CO catalyst = 7.5 lbs/hr of H₂SO₄

G = Emission factor of Sulfuric Acid due to the SCR Catalyst = 0.201 lbs/hr of H₂SO₄

D = Emission factor of Sulfuric Acid due to the Duct Burner GTC04 = 3.66 lbs/hr of H₂SO₄

Total Sulfuric Acid Emissions = emissions from gas turbine + emissions from CO catalyst + emissions from SCR catalyst + emissions from duct burner = E + F + G + D = 0.60 + 7.5 + 0.201 + 3.66 = 11.96 lbs/hr of Sulfuric Acid

Total Sulfuric Acid Emissions = 11.96 lbs/hr x $\left[\frac{1 \text{ hr}}{131 + 53}\right]$ MM Btu = 11.96 lbs/hr x $\left[\frac{1 \text{ hr}}{184}\right]$ MM Btu = 0.065 lbs/MM Btu

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.065 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 232: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 232.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Process: 016

Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 232.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The PM-10 emission limit is 0.01 lb/MM Btu during natural gas firing of the Duct Burner (Emission Control GTC06) in Emission Unit U-00006 - Process 016 based on the higher heating value (HHV) of fuel. Compliance with the PM-10 emission will be determined with a one time stack test within 6 months of initial operation on natural gas. The reference test method for PM-10 is 40 CFR Part 60, Appendix A, Methods 201A and 202. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PM-10

Upper Permit Limit: 0.01 pounds per million Btus

Reference Test Method: 40 CFR Appendix A, Methods 201A and 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 233: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 233.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 016

Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 233.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Particulates emission limit is 0.01 lb/MM Btu during natural gas firing of the Duct Burner (Emission Control GTC06) in Emission Unit U-00006 - Process 016 based on the higher heating value (HHV) of fuel. Compliance with the Particulates emission will be determined with a one time

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



stack test within 6 months of initial operation on natural gas. The reference test method for Particulates is 40 CFR Part 60, Appendix A, Method 5. The averaging method is for the reference test method is 1-hour average. BACT is required.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.01 pounds per million Btus

Reference Test Method: 40 CFR Appendix A, Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 234: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40 CFR 52.21(j), Subpart A

Item 234.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 016

Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

Item 234.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The Ammonia (SCR slip) emission limit is 10.0 parts per million by volume (dry, corrected to 15% O₂) during natural gas firing of the Duct Burner (Emission Control GTC06) in Emission Unit U-00006 - Process 016 based on the higher heating value (HHV) of fuel. Riverbay Corp Co-Op City will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed will be based on the NO_x and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Riverbay Corp - Co-Op City will use CEMS to monitor NH₃ emission at the gas turbine exhaust stack. BACT is required. Compliance with the Ammonia (SCR slip) emission will be determined with the use of CEMS. The reference test method for Ammonia (SCR slip) is 40 CFR 60 Appendix B and F. The averaging method is for the reference test method is 1-hour average.

Manufacturer Name/Model Number: TBD

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Parameter Monitored: AMMONIA
Upper Permit Limit: 10.0 parts per million by volume
(dry, corrected to 15% O₂)
Reference Test Method: 40 CFR Appendix B and F
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 235: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.42b(k)(2), NSPS Subpart Db

Item 235.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006	Emission Point: 00006
Process: 016	Emission Source: GTC06

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

Item 235.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The Sulfur Dioxide emission limit is 0.060 pounds per million Btu during natural gas firing in the duct burner [Process 016], Emission Control GTC06 in Emission Unit U-00006 based on the higher heating value (HHV) of the fuel. This emission limit applies at all times, including start-up / shutdown, equipment maintenance, malfunctions and upsets per the requirements of 6 NYCRR 201-1.4.

The sulfur dioxide emission limit is a discrete one hour average based on definition of "natural gas" per §60.331 (u) and the maximum heat input rating of the U-00006 combustion gas turbine. Natural gas is defined to contain 20.0 grains or less of total sulfur per 100 standard cubic feet and have a gross caloric value between 950 and 1100 Btu per standard cubic foot. The calculated upper limit of sulfur dioxide emissions, assuming 100% conversion of sulfur to sulfur dioxide, is 0.060 lbs/MM Btus.

$$(20 \text{ grains S}/100 \text{ SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285$$

lbs S per SCF gas

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu / SCF gas}) = 3.01 \text{ E-08 lbs S/Btu}$

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs S/Million Btu}$

Sulfur Dioxide emission limit = $(0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide / 1 lb Sulfur}) = 0.06 \text{ lbs Sulfur Dioxide/million Btu}$

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.060 pounds per million Btus

Reference Test Method: 40 CFR 60.48c (g)(3)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 236: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.45b(k), NSPS Subpart Db

Item 236.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00006

Emission Point: 00006

Process: 016

Emission Source: GTC06

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

Item 236.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Compliance with the Sulfur Dioxide emission limit for the duct burner (Emission Control GTC04) will be by maintaining records of the natural gas sulfur content (20 grains per 100 dscf of natural gas or less) in accordance with 40 CFR 60.45b(k).

$(20 \text{ grains S/100 SCF gas}) / (7000 \text{ grains/lb}) = 0.0000285 \text{ lbs S per SCF gas}$

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



$(0.0000285 \text{ lbs S per SCF gas}) / (950 \text{ Btu / SCF gas}) = 3.01 \text{ E-08 lbs S/Btu}$

$(3.01 \text{ E-08 lbs S/Btu}) \times (1 \text{ million Btu}) = 0.0301 \text{ lbs S/Million Btu}$

$\text{Sulfur Dioxide emission limit} = (0.0301 \text{ lbs S/Million Btu}) \times (2 \text{ lbs Sulfur Dioxide / 1 lb Sulfur}) = 0.06 \text{ lbs Sulfur Dioxide/million Btu}$

Regulation 40 CFR 60.45b, NSPS Subpart Db pertains to compliance & performance test methods for SO₂. Emission standards of 40 CFR 60.42b, NSPS Subpart Db apply at all times and [40 CFR 60.45b(k), NSPS Subpart Db] to demonstrate compliance with 40 CFR 60.45b(k)(2), NSPS Subpart Db, the procedures of 40 CFR 60.49b(r), NSPS Subpart Db must be followed. Regulation 40 CFR 60.49b(r), NSPS Subpart Db allows the facility to demonstrate compliance of SO₂ emissions through fuel based compliance alternatives.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.03 pounds per million Btus

Reference Test Method: 40 CFR 60.334(h)

Monitoring Frequency: MONTHLY

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 10/30/2013.

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

Condition 238: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

III

Item 238.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 238.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

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

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

For 2007 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

2007 model year and later - emission standards specified in 40 CFR 89.112 and 40CFR 89.113, as applicable

MTU Detroit Diesel, Model 12V4000 G43 4cycle unit rated at 1500 KW (2000 bhp)

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 1-30: Compliance Certification
Effective between the dates of 05/01/2014 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.4204(b), NSPS Subpart IIII

Item 1-30.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Process: GEN

Emission Point: 00007

Emission Source: GEN01

Item 1-30.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a 2007 model year or later non-emergency stationary compression ignition (CI)

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



internal combustion engine with a maximum engine power less than or equal to 2,237 kW (3,000 HP) and a displacement of less than 10 liters/cylinder will require certification to the emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power. Compliance with this requirement will be established by purchasing an engine certified to the emission standard referenced above and installed and configured according to the manufacturer's specifications. Records documenting these actions must be kept on-site.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2015.

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

Condition 239: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 239.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 239.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a 2007 model year or later emergency stationary compression ignition (CI) internal combustion engine with a maximum engine power less than or equal to 2,237 kW (3,000 HP) that is not a fire pump engine and has a displacement of less than 10 liters/cylinder will require certification to the following emission standards:

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

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 240: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 240.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007
Process: GEN

Emission Point: 00007
Emission Source: GEN01

Item 240.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The owner or operator of a stationary compression ignition internal combustion engine with a displacement of less than 30 liters per cylinder and which is subject to the requirements of subpart IIII of 40 CFR Part 60 may not fire diesel fuel above a maximum aromatic content of 35 percent per gallon as referenced in 40 CFR Part 80.510(b) except that any diesel fuel purchased or otherwise obtained prior to October 1, 2010 may be used until depleted. Compliance shall be demonstrated by either sampling each delivery and conducting an appropriate analysis or by obtaining a certificate of analysis showing the aromatic content for each shipment of diesel fuel provided by the fuel supplier. In either case, the owner or operator must verify that any required fuel analysis has been conducted using methodology acceptable to the Department. Records of all certificates of analysis provided by the fuel supplier and on-site fuel sampling results must be maintained on site for a minimum of five years.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: AROMATIC CONTENT

Upper Permit Limit: 35 percent

Monitoring Frequency: PER DELIVERY

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 10/30/2013.

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

Condition 241: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 241.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 241.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

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

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: CETANE INDEX

Lower Permit Limit: 40 ratio

Monitoring Frequency: PER DELIVERY

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



The initial report is due 10/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 242: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 242.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 242.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

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

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DIESEL OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 15 parts per million by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 10/30/2013.

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Condition 243: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 243.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 243.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 244: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 244.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 244.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the facility

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 245: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

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

Item 245.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 245.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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

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

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 247: Compliance Certification
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 60.4214, NSPS Subpart IIII

Item 247.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Process: GEN

Emission Source: GEN01

Item 247.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 249: Compliance Certification

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable Federal Requirement: 40CFR 89.112, Subpart B

Item 249.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00007

Emission Point: 00007

Process: GEN

Emission Source: GEN01

Item 249.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

General Requirements

1. Operating Requirements

a. The Permittee shall operate and maintain the engine

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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

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

c. The Permittee shall meet the requirements of 40 CFR parts 89, 94, or 1068, as they apply. [40 CFR 60.4211(a)]

d. Fuel Requirements

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

- (I) Sulfur content: 15 ppm maximum; and
 - (II) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
- [40 CFR 60.4207(b)]

e. Additional Emergency Engine Requirements
[40 CFR 60.4211(e), 60.4209(a)]

(1) The Permittee shall install a non-resettable hour meter prior to startup of the engine.

(2) Emergency engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

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

(4) The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year.

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



(5) The Permittee shall not operate emergency engines except for emergency purposes, and maintenance and testing.

(6) The Permittee shall maintain monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.

3. Monitoring and Record Keeping Requirements

a. The Permittee shall comply by purchasing an engine certified to the emission standards in this permit. The engine shall be installed and configured according to the manufacturer's specifications. [40 CFR 4211(c)]

b. The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that the engine complies with the applicable standards in this Permit, and shall make the documentation available to NYSDEC upon request.

c. The Permittee shall keep records of fuel supplier specifications. The specifications shall contain information regarding the name of fuel supplier, sulfur content, and cetane index or aromatic content in the fuel. These records shall be made available to NYSDEC upon request.

4. Permit Shield

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



STATE ONLY ENFORCEABLE CONDITIONS

****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

Item A: Emergency Defense - 6 NYCRR 201-1.5

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

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

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

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

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

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

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

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

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

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



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 255: Contaminant List

Effective between the dates of 06/10/2013 and 06/09/2018

Applicable State Requirement:ECL 19-0301

Item 255.1:

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

CAS No: 000630-08-0
Name: CARBON MONOXIDE

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

CAS No: 007664-41-7
Name: AMMONIA

CAS No: 007664-93-9
Name: SULFURIC ACID

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

CAS No: 0NY075-00-5
Name: PM-10

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

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



CAS No: 0NY998-00-0

Name: VOC

Condition 256: Malfunctions and start-up/shutdown activities
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable State Requirement:6 NYCRR 201-1.4

Item 256.1:

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 257: Visible Emissions Limited
Effective between the dates of 06/10/2013 and 06/09/2018

Applicable State Requirement:6 NYCRR 211.2

New York State Department of Environmental Conservation

Permit ID: 2-6003-00038/00008

Facility DEC ID: 2600300038



Item 257.1:

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

