

PERMIT Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility Permit ID: 9-1464-00153/00004

Mod 0 Effective Date: 11/08/2016 Expiration Date: 11/07/2021

Mod 1 Effective Date: 07/03/2018 Expiration Date: 11/07/2021

Permit Issued To:INDECK-ENERGY SERVICES INC

600 N BUFFALO GROVE RD - STE 300 BUFFALO GROVE, IL 60089-2432

Contact: JAMES SCHNEIDER

INDECK ENERGY SERVICES

600 NORTH BUFFALO GROVE RD # 300

BUFFALO GROVE, IL 60089-2432

(847) 520-3212

Facility: INDECK-YERKES ENERGY SERVICES

1 SHERIDAN DR

TONAWANDA, NY 14150

Contact: JOHN B KINGSTON

INDECK-YERKES ENERGY PLANT

1 SHERIDAN DR

TONAWANDA, NY 14150-7753

Description:

Indeck-Yerkes Energy Services, Inc. (Indeck) is a combined cycle Cogeneration Plant, which produces both electricity and steam. The facility, which is located at 1 Sheridan Drive in the Town of Tonawanda, Erie County New York, commenced operation in 1988. Indeck uses a General Electric Frame 6 (PG6541(B)) Gas Turbine generator, with a design output rating of 42 megawatts (MW), to produce electrical power and waste heat. A natural gas-fired duct burner, located upstream from the waste heat recovery steam generator (HRSG) and downstream from the gas turbine, is used to supply additional heat for the HRSG. Exhaust gas flows from the turbine to the duct burner through the HRSG and out the stack. A GE steam turbine, driven by the steam from the HRSG, produces up to 19.3 MW of additional electricity. The electricity produced by the gas and steam turbines is sold on the open market. Up to 75,000 lbs/hr of low pressure (550 psig) saturated steam is provided daily to the adjoining DuPont-Yerkes Production Plant from the steam turbine, or from an auxiliary boiler when the gas turbine, HRSG, and steam turbine are not operating.

New Replacement Burner:



This permit modification is being issued for installation of a new replacement low Oxides of Nitrogen (NOx) burner on the auxiliary boiler (Emission Unit Y-00002) and installment of a new boiler control system for the auxiliary boiler. The new burner will be constructed with the same heat input rating as the existing burner at 99 MMBtu/hr and capable of firing both natural gas and distillate fuel oil. The burner currently installed on the auxiliary boiler is not a low NOx burner and instead used flue-gas recirculation to reduce NOx. The existing burner was able to satisfy the new low NOx RACT emission limits that became effective on July 1, 2014 when firing natural gas. The auxiliary boiler has not fired distillate fuel oil since March, 1999 and the existing burner will not be able to meet the new NOx RACT limits. The new burner will allow the facility to burn fuel oil, if needed. The emission unit and process descriptions have been updated to reflect the new project. In addition, condition 1-2 has replaced condition 102 with new requirements to monitor the maximum firing capacity of the new burner.

Original PSD/NSR Analysis:

This facility is subject to the Best Available Control Technology (BACT) requirements under 40 CFR 52.21(j), Prevention of Significant Deterioration (PSD) for emissions of sulfur dioxide (SO2), NOx, particulate matter (PM) and particulates with a diameter equal to or less than 10 micro-meters (PM-10). Indeck Yerkes conducted the BACT analysis in 1988 when emission limits for NOx, CO, PM, and PM-10 for the auxiliary boiler were established. In addition, the original BACT analysis limited the use of distillate fuel oil in the auxiliary boiler to 1440 hours per year calculated on a daily rolling basis. The original PSD permit requirements have not been modified in this permit.

Modification PSD/NSR Review:

This permit modification was evaluated for applicability to PSD under 6 NYCRR Part 231-8 at an existing major facility located in an attainment area. The results of the evaluation indicated the 'project emission potential' of the proposed burner replacement project did not equal or exceed the significant project thresholds in table 6 of Subpart 231-13. The 'project emission potential' was calculated as the difference between the 'baseline actual emissions' and the 'projected actual emission' of the auxiliary boiler. The 'baseline actual emission' was estimated as the average actual emissions of the auxiliary boiler from the years 2017 and 2016. The projected use of the auxiliary boiler is not expected to change as result of the project. As a conservative estimate, the 'projected actual emission' was based on the auxiliary boiler running 7,320 hours per year on natural gas and 1,440 hours per year on distillate oil at a maximum heat input rate of 99 MMBtu/hr. The emission rates were determined as follows:

ACTUAL EMISSIONS (TPY)

	Baseline	Projected
NOx	9.5	25.3
CO	5.5	14.3
PM	0.3	8.8

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VOC	0.8	1.8
SO2	0.1	0.3

The projected 'project emission potential' (PEP) and comparison to the significant project thresholds are as follows:

	PEP(TPY)	Threshold (TPY)
NOx	15.8	40
CO	8.8	100
PM	8.5	25/15/10
VOC	1.0	40
SO2	0.2	40

As specified in 6 NYCRR Part 231-8.1(a), since the PEP does not equal or exceed the significant project threshold, the facility must comply with the provisions of 6 NYCRR Part 231-11.2. These requirements have been added to the permit under Condition 1-3.

NO2 and SO2 1-hour Standard:

A screening dispersion modeling analysis was conducted for the auxiliary boiler to evaluate the potential impact in regards to the 1-hour NO2 and SO2 National Ambient Air Quality Standards (NAAQS). The maximum impact scenario, when added to ambient background concentrations, did not exceed the NAAQS.

Performance Testing:

To demonstrate compliance with 40 CFR 60 Subpart Dc and 6 NYCRR Part 227-2.4 (c) for emission of NOx, CO, PM and PM-10, a performance test will be completed with the burner firing on natural gas and distillate fuel oil. The performance test will be completed within 60 days of achieving maximum production or within 180 days of startup. The testing permit conditions include 97, 99, 100, 101, 103, 105, 111 and 114.

CSAPR:

Emission unit Y-00001 is subject to the Cross-State Air Pollution Rule (CSAPR) requirements of 40 CFR Part 97. Recent updates to the regulation have been incorporated into this permit modification including replacing Subpart BBBBB (Condition 49) with Subpart EEEEE—Transport Region NOx Ozone Season Trading Program (Condition 1-1).

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:	DAVID S DENK DIVISION OF ENVIRONMENTAL PERMITS 270 MICHIGAN AVE BUFFALO, NY 14203-2915	
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 9 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.

Item3.2:

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

Item 3.3

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



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

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

Item 1-1.1:

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

Item1-1.2:

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

Item 1-1.3

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

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

Item 4.1:

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

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

**** Facility Level ****

Condition 5: Submission of application for permit modification or renewal-REGION 9
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

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Region 9 Headquarters Division of Environmental Permits 270 Michigan Avenue Buffalo, NY 14203-2915 (716) 851-7165



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ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

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Facility: INDECK-YERKES ENERGY SERVICES

1 SHERIDAN DR

TONAWANDA, NY 14150

Authorized Activity By Standard Industrial Classification Code:

4911 - ELECTRIC SERVICES

4931 - ELEC & OTHER SERVICES COMBINED

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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
- 5 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR 215.2: Open Fires Prohibitions
- 10 6 NYCRR 200.7: Maintenance of Equipment
- 11 6 NYCRR 201-1.7: Recycling and Salvage
- 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6 NYCRR 201-3.2 (a): Exempt Sources Proof of Eligibility
- 14 6 NYCRR 201-3.3 (a): Trivial Sources Proof of Eligibility
- 15 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 16 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 17 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 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 6 NYCRR 200.3: False statement
- 22 6 NYCRR 201-3.2 (c) (6): Compliance Certification
- 23 6 NYCRR Subpart 201-6: Emission Unit Definition
- 24 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 25 6 NYCRR 211.1: Air pollution prohibited
- 26 6 NYCRR 225-1.2: Compliance Certification
- 27 6 NYCRR 227-1.2 (a) (1): Compliance Certification
- 28 6 NYCRR 227-1.3: Compliance Certification
- 29 6 NYCRR 227-1.6: Corrective Action
- 30 6 NYCRR 227-1.7: Compliance Certification
- 31 40CFR 52.21(j), Subpart A: Posting of the emission limits and operating restrictions
- 32 40CFR 52.21(j), Subpart A: Compliance Certification
- 33 40CFR 52.21(j), Subpart A: Compliance Certification
- 34 40CFR 60, NSPS Subpart A: Applicability of Subpart A General Provisions
- 35 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 36 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 37 40CFR 60.7(c), NSPS Subpart A: Compliance Certification
- 38 40CFR 60.7(d), NSPS Subpart A: Excess emissions report.
- 39 40CFR 60.7(f), NSPS Subpart A: Facility files for subject sources.
- 40 40CFR 60.11, NSPS Subpart A: Opacity standard compliance testing.
- 41 40CFR 60.12, NSPS Subpart A: Circumvention.
- 42 40CFR 60.13, NSPS Subpart A: Monitoring requirements.



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- 43 40CFR 60.48c(g), NSPS Subpart Dc: Compliance Certification
- 44 40CFR 63, Subpart ZZZZ: Applicability
- 45 40CFR 63, Subpart ZZZZ: Compliance and Enforcement
- 46 40CFR 63.6603(a), Subpart ZZZZ: Compliance Certification
- 47 40CFR 63.6640(a), Subpart ZZZZ: Compliance Certification
- 1-1 40 CFR Part 97: Compliance Certification
- 48 40CFR 97.406, Subpart AAAAA: Compliance Certification
- 50 40CFR 97.606, Subpart CCCCC: Compliance Certification

Emission Unit Level

- 51 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 52 6 NYCRR Subpart 201-6: Process Definition By Emission Unit

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- 53 40CFR 52.21(j), Subpart A: CEM Reports
- 54 40CFR 52.21(j), Subpart A: Gas Turbine Output as a Function of Temperature and Load
- 55 40CFR 52.21(j), Subpart A: Compliance Certification
- 56 40CFR 52.21(j), Subpart A: Compliance Certification
- 57 40CFR 52.21(j), Subpart A: Compliance Certification
- 58 40CFR 52.21(j), Subpart A: Compliance Certification
- 59 40CFR 52.21(j), Subpart A: Compliance Certification
- 60 40CFR 52.21(j), Subpart A: Compliance Certification
- 61 40CFR 52.21(j), Subpart A: Compliance Certification
- 62 40CFR 52.21(j), Subpart A: Compliance Certification
- 63 40CFR 52.21(j), Subpart A: Compliance Certification
- 64 40CFR 52.21(j), Subpart A: Compliance Certification
- 65 40CFR 52.21(j), Subpart A: Compliance Certification
- 66 40CFR 52.21(j), Subpart A: Compliance Certification
- 67 40CFR 52.21(j), Subpart A: Compliance Certification
- 68 40CFR 52.21(j), Subpart A: Compliance Certification
- 69 40CFR 52.21(j), Subpart A: Compliance Certification
- 70 40CFR 52.21(j), Subpart A: Compliance Certification
- 71 40CFR 52.21(j), Subpart A: Compliance Certification
- 72 40CFR 52.21(j), Subpart A: Compliance Certification
- 73 40CFR 52.21(j), Subpart A: Compliance Certification
- 74 40CFR 52.21(j), Subpart A: Compliance Certification
- 75 40CFR 52.21(j), Subpart A: Compliance Certification
- 76 40CFR 52.21(i), Subpart A: Compliance Certification
- 77 40CFR 52.21(j), Subpart A: Compliance Certification
- 78 40CFR 52.21(j), Subpart A: Compliance Certification
- 79 40CFR 52.21(j), Subpart A: Compliance Certification
- 80 40CFR 52.21(j), Subpart A: Compliance Certification
- 81 40CFR 60.332(a)(1), NSPS Subpart GG: Compliance Certification
- 82 40CFR 60.332(f), NSPS Subpart GG: Exemption from NOx standard.
- 83 40CFR 60.333(b), NSPS Subpart GG: Compliance Certification
- 84 40CFR 60.334(b), NSPS Subpart GG: CEMS
- 85 40CFR 60.334(h)(1), NSPS Subpart GG: Compliance Certification
- 86 40CFR 60.334(h)(2), NSPS Subpart GG: Compliance Certification
- 87 40CFR 60.334(h)(3), NSPS Subpart GG: Compliance Certification
- 88 40CFR 60.334(i)(1), NSPS Subpart GG: Compliance Certification 89 40CFR 60.334(j), NSPS Subpart GG: Compliance Certification
- 90 40 CFR Part 72: Facility Subject to Title IV Acid Rain Regulations



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and Permitting

EU=Y-00001,Proc=007

91 6 NYCRR 227-1.2 (b): Multiple combustion sources.

EU=Y-00001,EP=00001,Proc=005

- 92 40CFR 52.21(j), Subpart A: Compliance Certification
- 93 40CFR 52.21(j), Subpart A: Compliance Certification

EU=Y-00001,EP=00001,Proc=007

94 40CFR 52.21(j), Subpart A: Compliance Certification

EU=Y-00001,EP=00001,Proc=009,ES=Y00DB

95 40CFR 52.21(j), Subpart A: Compliance Certification

EU=Y-00002

- 96 40CFR 52.21(j), Subpart A: Emission limits based on heat input
- 1-2 40CFR 52.21(j), Subpart A: Compliance Certification
- 97 40CFR 52.21(j), Subpart A: Compliance Certification
- 98 40CFR 52.21(j), Subpart A: Compliance Certification
- 99 40CFR 52.21(j), Subpart A: Compliance Certification
- 100 40CFR 52.21(j), Subpart A: Compliance Certification
- 101 40CFR 52.21(j), Subpart A: Compliance Certification
- 103 40CFR 52.21(j), Subpart A: Compliance Certification
- 104 40CFR 63, Subpart JJJJJJ: Compliance Certification

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- 105 6 NYCRR 227.2 (b) (1): Compliance Certification
- 106 40CFR 60.42c(h), NSPS Subpart Dc: Exemption from the averaging period.
- 107 40CFR 60.42c(i), NSPS Subpart Dc: Enforceability
- 108 40CFR 60.43c(c), NSPS Subpart Dc: Compliance Certification
- 109 40CFR 60.43c(d), NSPS Subpart Dc: Enforceability of particulate matter and opacity standards.
- 110 40CFR 60.44c(h), NSPS Subpart Dc: Alternative compliance methods for sulfur dioxide.
- 111 40CFR 60.45c, NSPS Subpart Dc: Compliance methods for particulate
- 112 40CFR 60.48c, NSPS Subpart Dc: Recordkeeping and reporting.
- 113 40CFR 60.48c(f)(1), NSPS Subpart Dc: Compliance Certification

EU=Y-00002,EP=00002

114 6 NYCRR 227-2.4 (c) (1) (ii): Compliance Certification

EU=Y-00002,EP=00002,Proc=011

- 115 40CFR 52.21(j), Subpart A: Compliance Certification
- 116 40CFR 60.42c(d), NSPS Subpart Dc: Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS **Facility Level**

- 117 ECL 19-0301: Contaminant List
- 118 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities



119 6 NYCRR 242-1.5: Compliance Demonstration
120 6 NYCRR Subpart 242-4: Compliance Demonstration
121 6 NYCRR Subpart 242-8: Compliance Demonstration
Emission Unit Level

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1-3 6 NYCRR 231-11.2 (c): Compliance Demonstration



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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



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

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

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

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

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

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

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

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

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

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



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

- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

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

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

- i. When additional applicable requirements under the act become applicable to a title V facility with a remaining permit term of three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the department pursuant to the provisions of section 201- 6.6 of this Subpart.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.
- iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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

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



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

Item K: Permit Exclusion - ECL 19-0305

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

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

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

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

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

Condition 1: Acceptable Ambient Air Quality

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 200.6

Item 1.1:

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



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

Condition 2: Fees

Effective between the dates of 11/08/2016 and 11/07/2021

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 11/08/2016 and 11/07/2021

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 11/08/2016 and 11/07/2021

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.

Condition 5: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 5.1:

The Compliance Certification activity will be performed for the Facility.

Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

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

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

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

- (1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
- (2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
- (3) For all other deviations from permit requirements,



the report shall be contained in the 6 month monitoring report required above.

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

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

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

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

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



report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2017.
Subsequent reports are due every 6 calendar month(s).

Condition 6: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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 recordkeeping and reporting requirements of this permit;



- such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
- such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All annual compliance certifications may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). The mailing addresses for the above referenced persons are:

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

The address for the RAPCE is as follows:

Regional Air Pollution Control Engineer NYSDEC Region 9 Headquarters 270 Michigan Avenue Buffalo, NY 14203-2915

The address for the BQA is as follows:



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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 1/30/2017.

Subsequent reports are due on the same day each year

Condition 7: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 202-2.1

Item 7.1:

The Compliance Certification activity will be performed for the Facility.

Item 7.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

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

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR)
Reports due by April 15th for previous calendar year

Condition 8: Recordkeeping requirements

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 202-2.5

Item 8.1:

- (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.



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Condition 9: Open Fires - Prohibitions

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 215.2

Item 9.1:

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 9.2

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

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
- (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
- (i) Prescribed burns performed according to Part 194 of this Title.
- (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
- (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
- (1) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.



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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 10: Maintenance of Equipment

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 200.7

Item 10.1:

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 11: Recycling and Salvage

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 11.1:

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 12: Prohibition of Reintroduction of Collected Contaminants to the air

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 201-1.8

Item 12.1:

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 13: Exempt Sources - Proof of Eligibility

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 13.1:

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



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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 14: Trivial Sources - Proof of Eligibility

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 14.1:

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 15: Requirement to Provide Information

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 15.1:

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 16: Right to Inspect

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 16.1:

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

- (i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and
- (iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring



compliance with the permit or applicable requirements.

Condition 17: Off Permit Changes

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 17.1:

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 18: Required Emissions Tests

Effective between the dates of 11/08/2016 and 11/07/2021

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 11/08/2016 and 11/07/2021

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 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 20.1:

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

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

Condition 21: False statement

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 200.3

Item 21.1:

No person shall make a false statement in connection with applications, plans, specifications and/or reports submitted pursuant to this Subchapter.

Condition 22: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 22.1:

The Compliance Certification activity will be performed for the Facility.

Item 22.2.

Compliance Certification shall include the following monitoring:



Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Indeck-Yerkes operates one (1) diesel fired emergency generator at the Energy Center. This generator is considered exempt from permitting if used for emergencies only, including times when the usual sources of heat, power, water and lighting are temporarily unobtainable, or to provide power to fire-fighting equipment. As proof of exempt eligibility for the emergency generator, the facility shall maintain monthly records which demonstrate that the engine is operated less than 500 hours per year, including test firing, on a 12-month rolling total basis. An hour counter or similar device shall be used to monitor hours of operation, which shall be recorded each month in a permanently bound log book or other format acceptable to NYSDEC. The emergency generator shall be operated and maintained according to manufacturer's specifications to insure proper performance. Reports shall be submitted to the Deparment stating the hours of operation and fuel use on a 12 month rolling average.

In addition, Records demonstrating hours of operation, quantity of fuel fired, the manufacturer's maintenance requirements and the maintenance performed on this source shall be kept on-site for five years and be readily available to NYSDEC representatives upon request.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 499 hours Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 23: Emission Unit Definition

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 23.1(From Mod 1):

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

Emission Unit: Y-00002 Emission Unit Description:

This unit consists of a 99 MMBtu/hr auxiliary boiler which exhausts to the atmosphere through emission point 00002. The boiler may be fueled with either natural gas or No. 2 fuel oil and is used to generate steam for DuPont when the HRSG is not in use. The auxiliary boiler uses a low NOx burner and flue gas recirculation to control NOx



emissions.

Building(s): 1

Item 23.2(From Mod 0):

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

Emission Unit: Y-00001 Emission Unit Description:

> This emission unit consists of one GE Frame 6 combustion turbine (turbine) with a design heat input of 476 MMBTU/hr and 42 MW design power output at 48 degrees Fahrenheit. The turbine is equipped with an evaporative cooler which cools the turbine inlet air, increasing the inlet mass air flow and subsequently the turbine efficiency and power output. The emission unit is also equipped with a natural gas fired 30 MMBTU/hr duct burner which supplements the waste heat from the turbine for a heat recovery steam generator (HRSG) downstream. The HRSG supplies steam to DuPont Yerkes for production and also to a 19.3 MW steam turbine for additional power generation. The combustion turbine can fire natural gas, No. 2 fuel oil or a mixture of these fuels. Nitrogen oxide (NOx) emissions from the turbine are controlled by steam injection. Exhaust from the turbine and duct burner vent into one stack, emission point 00001, where emissions of NOx and CO are continuously monitored and recorded by a Continuous Emission Monitoring system (CEMs).

Building(s): 1

Condition 24: Progress Reports Due Semiannually

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 24.1:

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

- (i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
- (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

Condition 25: Air pollution prohibited

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 211.1



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Item 25.1:

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 26: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 225-1.2

Item 26.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 26.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

No person will sell, offer for sale, purchase, or fire any fuel which exceeds the sulfur-in-fuel limitations of this Section, except as provided in Sections 225-1.3 or 225-1.4 of this Subpart. For the purposes of this Subpart liquid bio-fuels, other than waste oils, will be required to meet the sulfur-in-fuel standards of either number two heating oil or distillate oil.

- (g) 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.
- (h) Owners and/or operators of any stationary combustion installation that fires distillate oil including number two heating 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.

This sulfur limit of 0.0015 percent sulfur by weight (15ppm) is more restrictive than the other sulfur limits provided in this permit. While this limit is more restrictive, all limits still apply.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL 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: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 27: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 27.1:

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

Emission Unit: Y-00001 Emission Point: 00001

Process: 005

Emission Unit: Y-00001 Emission Point: 00001

Process: 007

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 27.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

No person shall cause or allow an emission into the outdoor atmosphere of particulates in excess of 0.10 pound per million Btu (lb/mmBTU) heat input from any stationary combustion installation with a maximum heat input capacity exceeding 250 million Btu per hour using oil, coal tar, or any liquid fuel derived from coal.

Indeck-Yerkes operates a stationary gas turbine with a



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maximum heat input capacity of 476 MMBTU/hr at 48 degrees Fahrenheit, that may be fueled with either natural gas or No. 2 fuel oil. The gas turbine, while firing No 2 fuel oil, is subject to the particulate emission limit of 0.038 lb/mmBTU heat input established under 40CFR52.21(j)-Prevention of significant deterioration of air quality (PSD). Therefore, the PSD limit supersedes the less stringent particulate limit of 0.10 lb/mmBTU specified under 6NYCRR227-1.2(a)(1). A stack test, conducted upon request to verify compliance with the PSD limit, shall also verify compliance with this limit.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: USEPA Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

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 1/30/2017.

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

Condition 28: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 227-1.3

Item 28.1:

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

Emission Unit: Y-00001 Emission Point: 00001

Process: 005

Emission Unit: Y-00001 Emission Point: 00001

Process: 007

Emission Unit: Y-00002 Emission Point: 00002

Process: 011

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 28.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL

DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

(a) No person shall operate a stationary combustion



installation which exhibits greater than 20 percent opacity (six minute average), except for one six-minute period per hour of not more than 27 percent opacity.

- (b) Compliance with the opacity standard may be determined by:
- (1) conducting observations in accordance with Reference Method 9:
- (2) evaluating Continuous Opacity Monitoring System (COMS) records and reports; and/or
- (3) considering any other credible evidence.

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

- 1) Observe the stack for each combustion installation which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).
- 2) The results of each visual observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack: the date, time of day, weather conditions, observer's name, and whether any opacity was observed. Inclement weather conditions shall be recorded for those days when observations are prohibited. This logbook must be retained at the facility for five (5) years after the date of the last entry and shall be available for inspection by USEPA and/or Department representatives upon request.
- 3)Visible emissions greater than 0% opacity are not necessarily indicative of an emission violation, but rather serve as a trigger for additional testing and/or further investigation to determine compliance with the opacity limit. If the operator observes emissions greater than 0% opacity (other than steam**) two consecutive days firing oil (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The operator must



contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance. If, however, the opacity observed seems excessive and/or unusual and a Method 9 certified evaluator is not readily available to determine the opacity at that time, immediate attention is required to correct the problem causing the opacity. The results of any Method 9 analysis performed must be recorded in the daily logbook and the Visible Emissions Observation Field Data Sheet with a copy of the VEO Certification for the observer must be kept on-site. A description of the plume, the cause and corrective action taken shall also be documented in the daily logbook. Annual compliance certification and semi-annual monitoring reports are required.

Emission Unit Y-00002, Process 11 is also subject to the opacity requirements specified under 40CFR60.43c(c), which are equivalent to those under this Part. Therefore, compliance with the requirements specified under 6NYCRR227-1.3 shall fulfill the requirements of 40CFR60.43c(c).

All stationary combustion installations shall be operated and maintained according to manufacturer's specifications and tuned annually, at a minimum, to insure proper performance and compliance with the regulatory limit for opacity. Records demonstrating hours of operation, fuel usage, the manufacturer's maintenance requirements and procedures and maintenance/ tune-ups performed for these sources shall be maintained onsite for five years and be readily available to NYSDEC representatives upon request.

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

Parameter Monitored: OPACITY Upper Permit Limit: 20 percent Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING



DESCRIPTION

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 1/30/2017.

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

Condition 29: Corrective Action

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 227-1.6

Item 29.1:

- (a) Any person found to have violated any provision of this Part shall not cause, permit or allow operation of the stationary combustion installation involved in the violation unless:
 - (1) it is equipped with approved emission control equipment;
 - (2) it is rehabilitated or upgraded in an approved manner; or
 - (3) the fuel is changed to an acceptable type.
- (b) The commissioner may seal such stationary combustion installation so as to prevent any operation if the conditions of paragraph (a)(1)-(3) above are not met within the time provided by the order of final determination issued in the case of the violation.
- (c) No person shall cause, permit or allow operation of any stationary combustion installation sealed by the commissioner in accordance with this section.
- (d) No person except the commissioner or his representative shall remove, tamper with or destroy any seal affixed to any stationary combustion installation.

Condition 30: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 227-1.7

Item 30.1:

The Compliance Certification activity will be performed for the Facility.

Item 30.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

(a) Emission data. Any person who owns or operates a stationary combustion installation described in 6 NYCRR Part 227-1 shall provide pertinent data concerning emissions when so requested by the commissioner.



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(b) Test methods. Sampling, compositing and analysis of fuel samples shall be carried out in accordance with the most recent ASTM standard methods or equivalent methods acceptable to the commissioner.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 31: Posting of the emission limits and operating restrictions

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 31.1:

A summary of the emission limits and operating restrictions of this permit must be posted in the control room of the facility and must be plainly visible (without obstructions) to the operator of the facility.

Condition 32: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 32.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 32.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Total annual fuel oil use shall not exceed 11.5 million gallons based on a daily rolling basis. The daily amount of distillate oil burned in the gas turbine (Process 007 and Process 005), the auxiliary boiler (Process 011) and any other combustion sources (including exempt) shall be recorded in a permanently bound log book or other format acceptable to the Department. The quantity of fuel used shall be reported to the Department on a quartely basis in the form of 365 daily rolled averages. Hardcopies of records must be maintained on-site and made available for inspection by a regulatory agency upon request.

Work Practice Type: PROCESS MATERIAL THRUPUT



Process Material: NUMBER 2 OIL Upper Permit Limit: 11.5 million gallons

Monitoring Frequency: DAILY

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

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 33: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 33.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 33.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The sulfur content of fuel oil used at any combustion source at Indeck-Yerkes shall not exceed 0.3% sulfur by weight, based on a November 18, 1988 BACT determination required under 40CFR52.21(j). Sampling and analysis for the fuel oil sulfur content shall be conducted in accordance with 40CFR75, Appendix D - Optional SO2 Emissions Data Protocol for Gas-Fired and Oil-Fired Units.

In addition, this permit also contains a more stringent sulfur requirements from Subpart 225-1: Fuel Composition and Use - Sulfur Limitations. Subpart 225 restricts the facility from burning #2 fuel oil (distillate) that has a higher sulfur content than 0.0015 percent sulfur by weight (15 ppm). Both limits apply.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT Upper Permit Limit: 0.3 percent by weight

Reference Test Method: See Appendix D to 40CFR75

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.



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The initial report is due 1/30/2017. Subsequent reports are due every 3 calendar month(s).

Condition 34: Applicability of Subpart A General Provisions

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60, NSPS Subpart A

Item 34.1:

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

Condition 35: EPA Region 2 address.

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.4, NSPS Subpart A

Item 35.1:

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

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

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

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

Condition 36: Recordkeeping requirements.

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 36.1:

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

Condition 37: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021



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

Item 37.1:

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

Emission Unit: Y-00001

Item 37.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

- (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)



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Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 38: Excess emissions report.

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 38.1:

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

Condition 39: Facility files for subject sources.

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 39.1:

The following files shall be maintained at the facility for all affected sources: all measurements, including continuous monitoring systems, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part, recorded in permanent form suitable for inspections. The file shall be maintained for at least two years following the date of such measurements, reports, and records.

Condition 40: Opacity standard compliance testing.

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:40CFR 60.11, NSPS Subpart A

Item 40.1:

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

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

Condition 41: Circumvention.

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.12, NSPS Subpart A

Item 41.1:

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would



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otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

Condition 42: Monitoring requirements.

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.13, NSPS Subpart A

Item 42.1:

All continuous monitoring systems and devices shall be installed, calibrated, maintained, and operated in accordance with the requirements of section 60.13.

Condition 43: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 43.1:

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

Emission Unit: Y-00001

Process: 009 Emission Source: Y00DB

Emission Unit: Y-00002

Process: 010 Emission Source: Y0AUX

Emission Unit: Y-00002

Process: 011 Emission Source: Y0AUX

Item 43.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of each affected facility (Emission Source (ES) Y0AUX (auxiliary boiler) and ES Y00DB (duct burner)) shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

Both ES Y0AUX and ES Y00DB have maximum heat input capacities that are less than 100 mmBTU/hr. ES Y0AUX is permitted to combust either natural gas or No. 2 fuel oil. ES Y00DB combusts natural gas only. Emission factors



from AP-42 were used to determine the emission rate of sulfur dioxide for the combustion of No. 2 fuel oil and natural gas in boilers with heat input capacities of less than 100 mmBTU/hr. While firing No. 2 fuel oil with a sulfur content of 0.3% sulfur by weight and a heating value of 138 mmBTU/1000 gal, Y0AUX has a sulfur dioxide emission rate of 0.31 lb/mmBTU. The firing of natural gas with a sulfur content of 200 grains/10E6 scf and HHV of 1020 BTU/scf in ES Y0AUX and ES Y00DB results in an emission rate for sulfur dioxide of 0.00006 lb/mmBTU. Since these emission rates are both less than 0.32 lb/mmBTU, Indeck-Yerkes may record fuel usage monthly.

In addition, this permit also contains a more stringent sulfur requirements from Subpart 225-1: Fuel Composition and Use - Sulfur Limitations. Subpart 225 restricts the facility from burning #2 fuel oil (distillate) that has a sulfur content grater than 0.0015 percent sulfur by weight (15 ppm).

Monitoring Frequency: MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 44: Applicability

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 63, Subpart ZZZZ

Item 44.1:

Facilities that have reciprocating internal combustion engines must comply with applicable portions of 40 CFR 63 subpart ZZZZ.

Condition 45: Compliance and Enforcement

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 63, Subpart ZZZZ

Item 45.1:

The Department has not accepted delegation of 40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Any questions concerning compliance and/or enforcement of this regulation should be referred to USEPA Region 2, 290 Broadway, 21st Floor, New York, NY 10007-1866; (212) 637-4080. Should the Department decide to accept delegation of 40 CFR Part 63 Subpart ZZZZ during the term of this permit, enforcement of this regulation will revert to the Department as of the effective date of delegation.



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Condition 46: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 63.6603(a), Subpart ZZZZ

Item 46.1:

The Compliance Certification activity will be performed for the Facility.

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

> The owner or operator of an existing emergency and black start compression ignition stationary RICE located at an area source of HAP emissions must comply with the following maintenance procedures:

- (1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
- (2) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Initial compliance will be demonstrated according to the provisions in 40 CFR 63.6630.

Continuous compliance will then be demonstrated according to 40 CFR 63.6640. The facility must keep records according to the provisions in 40 CFR 63.6655 and submit the notifications and reports listed in 40 CFR 63.6645 and 63.6650.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING **DESCRIPTION**

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 47: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 47.1:

The Compliance Certification activity will be performed for the Facility.



Item 47.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

A facility complying with the requirement to change oil and filter, inspect spark plugs, and inspect hoses and belts will demonstrate continuous compliance if each of the following is met:

- 1) develop an follow a site specific maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
- 2) keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

Monitoring Frequency: ANNUALLY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 1-1: Compliance Certification

Effective between the dates of 07/03/2018 and 11/07/2021

Applicable Federal Requirement:40 CFR Part 97

Item 1-1.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 011104-93-1 NITROGEN OXIDE- (USE 0NY210-00-0)

Item 1-1.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

This is condition is specific to subpart EEEEE within Part 97.

(1) The facility shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with §§97.813 through 97.818 of Subpart EEEEE. The facility shall notify the Department of this representative (and alternative) with contact information upon issuance of this permit and when any changes are made to the



representative (or alternative) or their contact information.

- (2) The facility, and the designated representative, of each CSAPR NOx Ozone Season source (facility) and each CSAPR NOx Ozone Season Unit at the facility shall comply with the monitoring, reporting, and recordkeeping requirements of §§97.830 through 97.835 of Subpart EEEEE and subpart H of part 75 of this chapter. This includes but is not limited to: requirements for installation, certification, and data accounting for all required monitoring systems; requirements for recording, reporting, and quality-assurance of the data; and certification of compliance of such data. Data from continuous emission monitoring equipment are submitted quarterly (calendar year). These reports are generally due 30 days after the end of a calendar quarter. All other monitoring data are submitted to the DEC semiannually (calendar year). These reports are due on January 30th and July 30th of each year.
- (3) The emissions data determined shall be used to calculate allocations of CSAPR NOx Ozone Season allowances and to determine compliance with the CSAPR NOx Ozone Season emissions limitation and assurance provisions. As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NOx Ozone Season facility and each CSAPR NOx Ozone Season Unit at the facility shall hold, in the facilities compliance account, CSAPR NOx Ozone Season allowances available for deduction for such control period under §97.824(a) in an amount not less than the tons of total NOx emissions for such control period from all CSAPR NOx Ozone Season Units at the facility.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 48: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 97.406, Subpart AAAAA

Item 48.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

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

Item 48.2:

Compliance Certification shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

- (1) The facility shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with §§97.413 through 97.418 of Subpart AAAAA. The facility shall notify the Department of this representative (and alternative) with contact information upon issuance of this permit and when any changes are made to the representative (or alternative) or their contact information.
- (2) The facility, and the designated representative, of each TR NOX Annual source (facility) and each TR NOx Annual Unit at the facility shall comply with the monitoring, reporting, and recordkeeping requirements of §§97.430 through 97.435 of Subpart AAAAA and subpart H of part 75 of this chapter. This includes but is not limited to: requirements for installation, certification, and data accounting for all required monitoring systems; requirements for recording, reporting, and quality-assurance of the data; and certification of compliance of such data. Data from continuous emission monitoring equipment are submitted quarterly (calendar year). These reports are generally due 30 days after the end of a calendar quarter. All other monitoring data are submitted to the DEC semiannually (calendar year). These reports are due on January 30th and July 30th of each vear.
- (3) The emissions data determined shall be used to calculate allocations of TR NOx Annual allowances and to determine compliance with the TR NOx Annual emissions limitation and assurance provisions. As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NOx Annual facility and each TR NOx Annual Unit at the facility shall hold, in the facilities compliance account, TR NOx Annual allowances available for deduction for such control period under §97.424(a) in an amount not less than the tons of total NOx emissions for such control period from all TR NOX Annual Units at the facility.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 50: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021



Applicable Federal Requirement: 40CFR 97.606, Subpart CCCCC

Item 50.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 50.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

- (1) The facility shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with §§97.613 through 97.618 of Subpart CCCCC. The facility shall notify the Department of this representative (and alternative) with contact information upon issuance of this permit and when any changes are made to the representative (or alternative) or their contact information.
- (2) The facility, and the designated representative, of each TR SO2 Group 1 source (facility) and each TR SO2 Group 1 Unit at the facility shall comply with the monitoring, reporting, and recordkeeping requirements of §§97.630 through 97.635 of Subpart CCCCC and subpart H of part 75 of this chapter. This includes but is not limited to: requirements for installation, certification, and data accounting for all required monitoring systems; requirements for recording, reporting, and quality-assurance of the data; and certification of compliance of such data. Data from continuous emission monitoring equipment are submitted quarterly (calendar year). These reports are generally due 30 days after the end of a calendar quarter. All other monitoring data are submitted to the DEC semiannually (calendar year). These reports are due on January 30th and July 30th of each year.
- (3) The emissions data determined shall be used to calculate allocations of TR SO2 Group 1 allowances and to determine compliance with the TR SO2 Group 1 emissions limitation and assurance provisions. As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO2 Group 1 facility and each TR SO2 Group 1 Unit at the facility shall hold, in the facilities compliance account, TR SO2 Group 1 allowances available for deduction for such control period under §97.624(a) in an amount not less than the tons of



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total SO2 emissions for such control period from all TR SO2 Group 1 Units at the facility.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**** Emission Unit Level ****

Condition 51: Emission Point Definition By Emission Unit

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 51.1(From Mod 0):

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

Emission Unit: Y-00001

Emission Point: 00001

Height (ft.): 150 Diameter (in.): 117

NYTMN (km.): 4764.631 NYTME (km.): 180.487 Building: 1

Item 51.2(From Mod 0):

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

Emission Unit: Y-00002

Emission Point: 00002

Height (ft.): 90 Diameter (in.): 36

NYTMN (km.): 4764.626 NYTME (km.): 180.477 Building: 1

Condition 52: Process Definition By Emission Unit

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 52.1(From Mod 1):

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

Emission Unit: Y-00002

Process: 010 Source Classification Code: 1-02-006-02

Process Description:

This process consists of the auxiliary boiler burning natural gas. A low NOx burner and Flue Gas Recirculation

are used to control NOx emissions.

Emission Source/Control: Y0AUX - Combustion Design Capacity: 99 million Btu per hour



Emission Source/Control: Y0FGR - Control Control Type: FLUE GAS RECIRCULATION

Item 52.2(From Mod 1):

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

Emission Unit: Y-00002

Process: 011 Source Classification Code: 1-02-005-02

Process Description:

This process consists of the auxiliary boiler burning Number 2 distillate oil. A low NOx burner and Flue Gas Recirculation are used to control NOx emissions.

Emission Source/Control: Y0AUX - Combustion

Design Capacity: 99 million Btu per hour

Emission Source/Control: Y0FGR - Control Control Type: FLUE GAS RECIRCULATION

Item 52.3(From Mod 0):

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

Emission Unit: Y-00001

Process: 005 Source Classification Code: 2-01-001-01

Process Description:

This process consists of a GE Frame 6 gas turbine firing on a mixture of No. 2 fuel oil and natural gas with or

without the duct burner firing.

Emission Source/Control: Y00DB - Combustion Design Capacity: 30 million Btu per hour

Emission Source/Control: Y00GT - Combustion Design Capacity: 476 million Btu per hour

Emission Source/Control: Y00SI - Control Control Type: STEAM OR WATER INJECTION

Item 52.4(From Mod 0):

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

Emission Unit: Y-00001

Process: 006 Source Classification Code: 2-01-002-01

Process Description:

This process consists of a GE Frame 6 gas turbine firing

on natural gas without the duct burner firing.

Emission Source/Control: Y00GT - Combustion Design Capacity: 476 million Btu per hour

Emission Source/Control: Y00SI - Control Control Type: STEAM OR WATER INJECTION



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Item 52.5(From Mod 0):

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

Emission Unit: Y-00001

Process: 007 Source Classification Code: 2-01-001-01

Process Description:

This process consists of a GE Frame 6 gas turbine firing on Number 2 distillate oil with or without the duct burner

firing.

Emission Source/Control: Y00DB - Combustion Design Capacity: 30 million Btu per hour

Emission Source/Control: Y00GT - Combustion Design Capacity: 476 million Btu per hour

Emission Source/Control: Y00SI - Control Control Type: STEAM OR WATER INJECTION

Item 52.6(From Mod 0):

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

Emission Unit: Y-00001

Process: 009 Source Classification Code: 2-02-002-03

Process Description:

This process consists of a GE Frame 6 gas turbine and

duct burner firing on natural gas.

Emission Source/Control: Y00DB - Combustion Design Capacity: 30 million Btu per hour

Emission Source/Control: Y00GT - Combustion Design Capacity: 476 million Btu per hour

Emission Source/Control: Y00SI - Control Control Type: STEAM OR WATER INJECTION

Condition 53: CEM Reports

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 53.1:

This Condition applies to Emission Unit: Y-00001

Item 53.2:

Indeck shall submit a quarterly written CEM report to NYSDEC for every calendar year quarter. All quarterly reports shall be post marked by the 30th day following the end of each calendar quarter and shall include:

(i) a summary of excess emissions and CEMS down time reported in the format specified



in Appendix C of the Title V permit, 40 CFR60.7(d) or equivalent;

- (ii) the results of the quarterly monitoring performance audit, reported in the format of 40 CFR 60 Appendix F (or equivalent);
- (iii) excess emissions shall be identified as any one-hour block period during which the average emissions of NOx or CO, as measured by the CEM system, exceeds the corresponding mass or concentration emission limits set forth in this permit; and
- (iv) for the purposes of this permit, excess emissions indicated by the CEM system for one hour block periods other than start-ups and shutdowns, malfunctions (as stated in 6NYCRR Subpart 201-1.4) and CEM calibrations may be considered violations of the applicable emission limits.

Condition 54: Gas Turbine Output as a Function of Temperature and Load Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 54.1:

This Condition applies to Emission Unit: Y-00001

Item 54.2:

The gas turbine output in kilowatts (KW) which corresponds to the ambient temperature and percent load shall be derived from Figure 5, contained in Appendix A of the Title V permit. The figure depicts the output of the gas turbine in KW as a function of temperature in degrees F for 80% and 100% loads.

Condition 55: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 55.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 55.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Facility is subject to Best Available Control Technology (BACT) requirements under 40CFR52.21 (PSD) for particulate matter (PM). A PSD BACT determination

conducted for the original operating permit resulted in



the use of clean fuel, i.e. 75% natural gas and 25% No. 2 fuel oil, with no add-on control as BACT for PM. The PSD emission limit (based on HHV of fuel) for PM of 0.007 lb/mmBTU for applies to the gas turbine firing on natural gas with or without the duct burner firing (Process 006 and Process 009) at all allowable loads, where initial stack testing was required for compliance.

USEPA Test Method 5, contained in 40CFR60, Appendix A, shall be utilized for the determination of in-stack PM emissions. Additional stack testing may be required to verify compliance and shall be conducted upon request.

Upper Permit Limit: 0.007 pounds per million Btus

Reference Test Method: Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 56: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 56.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 56.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The Facility is subject to BACT requirements under 40CFR52.21 (PSD) for particulate matter (PM). A PSD BACT determination conducted for the original operating permit resulted in the use of clean fuel, i.e. 75% natural gas and 25% No. 2 fuel oil, with no add-on control as BACT for PM. This yielded a PSD mass emission limit for PM of 17 lb/hr and applies to all loads greater than the minimum allowable load of 80% power output for the gas turbine firing on No. 2 fuel oil with the duct burner firing (Process 007), where initial stack testing was required for compliance. USEPA Test Method 5, contained in



40CFR60, Appendix A, shall be utilized for the determination of in-stack PM emissions. Additional stack testing may be required to verify compliance and shall be conducted upon request.

Upper Permit Limit: 17 pounds per hour Reference Test Method: USEPA Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

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 1/30/2017.

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

Condition 57: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 57.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 57.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

During periods of water washing, CO emissions from the gas turbine and maximum in-stack CO emissions from the gas turbine with or without the duct burner shall not exceed 40 ppm. The duration of each water wash shall not exceed 2 hours.

The CEMS shall meet the requirements specified in the Facility CEMS Monitoring and QA Plans which are based on 40CFR60 Appendix B and Appendix F, the NESCAUM Guidance for CEMS (9/90) and the NYSDEC Air Guide No. 34. Performance Specification No. 4 (PS-4) contained in 40CFR60 Appendix B shall be used to evaluate the CO CEMS. Procedure 1 (P-1) contained in 40CFR60 Appendix F shall be used to evaluate the effectiveness of Quality Control and Quality Assurance procedures and the quality of data produced by the CEMS to determine compliance with this limit for CO.



Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 601P

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 40 parts per million by volume (dry,

corrected to 15% O2)

Reference Test Method: USEPA Method 10 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 1/30/2017.

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

Condition 58: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 58.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

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

Item 58.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

NOX EMISSIONS LIMIT FOR PERIODS OF STARTUP or SHUTDOWN OF THE GAS TURBINE WHILE FIRING NATURAL GAS (Process 006 and Process 009):

The original PSD permit provided a three hour period during which startup or shutdown of the stationary gas turbine could occur without enforcement of the normal operating emission limits for NOx. During these periods of thermal instability, compliance with the NOx limits established under PSD was technologically infeasible. The stationary gas turbine requires up to three hours of operation before thermal stability is obtained and NOx emissions can be reduced via steam injection. During shutdown there may also be limited steam available for steam injection to control NOx. The NOx mass emission limit specified in this condition has been established for the stationary gas turbine during periods of start-up and shutdown, only.

1.) Firing natural gas, the combustion gas turbine shall not emit more than 501 pounds of NOx during a startup or shutdown period. Startup and shutdown periods shall not



exceed 180 minutes (three hours). A startup period begins when the combustion process is initiated from shutdown status and continues until the lowest allowable operating load is attained and the steam injection system is fully operational and able to meet NOx emission limits. A shutdown period begins when the unit goes below the lowest level of stable operation and continues until the fuel supply is completely turned off.

- 2.) The hourly emissions for any partial hour after the end of the startup period or before a shutdown period, will be calculated following the procedures in 40CFR Part 60, where there must be at least one minute of data outside the startup or shutdown period to be a valid 15-minute period. The calculated hourly average must comply with the normal operating emission limits.
- 3.) The total emissions from each startup and shutdown period shall be recorded. Data recording should be adjusted to reflect the CEM response time.
- 4.) CEM calibrations shall be avoided during the startup or shutdown periods when feasible.
- 5.) Any occurrence of excess emissions shall be reported to the Department promptly and shall include the cause, the corrective action taken and the actual mass emissions. This information shall also be included in the semi-annual compliance report.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 501 pounds

Reference Test Method: 40 CFR Part 60, Appendix B, PS 2

Monitoring Frequency: CONTINUOUS

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED PER

OCCURRENCE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 59: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 59.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001



Regulated Contaminant(s):

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

Item 59.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

NOX EMISSIONS LIMIT FOR PERIODS OF STARTUP or SHUTDOWN OF THE GAS TURBINE (GT) WHILE FIRING FUEL OIL (Process 007):

The original PSD permit provided a three hour period during which startup or shutdown of the stationary gas turbine could occur without enforcement of the normal operating emission limits for NOx. During these periods of thermal instability, compliance with the NOx limits established under PSD was technologically infeasible. The stationary gas turbine requires up to three hours of operation to generate steam via the Heat Recovery Steam Generator for injection into the GT to control NOx formation. During shutdown there may also be limited steam available for steam injection to control NOx. The NOx mass emissions limit specified in this condition has been established for the stationary gas turbine during periods of start-up and shutdown, only.

- 1.) Firing fuel oil, the combustion gas turbine shall not emit more than 484 pounds of NOx during a startup or shutdown period. Startup and shutdown periods shall not exceed 180 minutes (three hours). A startup period begins when the combustion process is initiated from shutdown status and continues until the lowest allowable operating load is attained and the steam injection system is fully operational and able to meet NOx emission limits. A shutdown period begins when the unit goes below the lowest level of stable operation and continues until the fuel supply is completely turned off.
- 2.) The hourly emissions for any partial hour after the end of a startup period or before a shutdown period, will be calculated following the procedures in 40CFR Part 60, where there must be at least one minute of data outside the startup or shutdown period to be a valid 15-minute period. The calculated hourly average must comply with the normal operating emission limits.
- 3.) The total emissions from each startup and shutdown period shall be recorded. Data recording should be adjusted to reflect the CEM response time.
- 4.) CEM calibrations shall be avoided during the startup



or shutdown periods when feasible.

5.) Any occurrence of excess emissions shall be reported to the Department promptly and shall include the cause, the corrective action taken and the actual mass emissions. This information shall also be included in the semi-annual compliance report.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 484 pounds

Reference Test Method: 40 CFR Part 60, Appendix B, PS 2

Monitoring Frequency: CONTINUOUS

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED PER

OCCURRENCE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 60: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 60.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

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

Item 60.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The facility shall operate and maintain a CEMS to measure and record NOx emissions and to demonstrate compliance with the 42ppmv NOx limit. This emission limit for NOx applies to in-stack emissions for all operating loads equal to or greater than 24 MW power output for the gas turbine and the gas turbine/duct burner firing on natural gas (Processes 006 and 009, respectively). The CEMS shall be maintained and operated in accordance with the approved Facility CEMS Monitoring & QA Plans which are based on 40CFR60 Appendix B (Performance Specifications) & Appendix F (Quality Assurance Procedures), the NESCAUM Guidance for CEMS (9/90), and the NYSDEC Air Guide No. 34. Performance Specification No. 2 (PS-2) contained in



40CFR60 Appendix B shall be used to evaluate the NOx CEMS. Procedure 1 (P-1) contained in 40CFR60 Appendix F shall be used to evaluate the effectiveness of Quality Control and Quality Assurance procedures and the quality of data produced by the CEMS to determine compliance with this limit for NOx. Compliance with this limit also satisfies the requirements for 6NYCRR227-2.4(e)(2)(i), NOx RACT, which specifies an equivalent limit for NOx.

The stationary gas turbine is also subject to NSPS 40 CFR 60 Subpart GG in addition to the limit in Prevention of Significant Deterioration (PSD). The PSD limits of 42 ppmv a for natural gas (dry, corrected to 15% O2) is more restrictive than the 75 ppm limit in Subpart GG. However, the facility must comply with both Subpart GG and PSD limits

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 42 parts per million by volume (dry,

corrected to 15% O2)

Reference Test Method: USEPA 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 1/30/2017.

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

Condition 61: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 61.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

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

Item 61.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

The facility shall operate and maintain a CEMS to measure and record NOx emissions and to demonstrate compliance with the 65 ppmv NOx limit. This emission limit for NOx applies to the minimum allowable load (80% power output)



and full load (100% power output) for the turbine firing on No. 2 oil (Process 007) and a combination of natural gas and No. 2 oil (Process 005). The CEMS shall be maintained and operated in accordance with the current approved Facility CEMS Monitoring & QA Plans which are based on 40CFR60 Appendix B & Appendix F, the NESCAUM Guidance for CEMS (9/90), and the NYSDEC Air Guide No. 34. Performance Specification No. 2 (PS-2) contained in 40CFR60 Appendix B shall be used to evaluate the NOx CEMS. Procedure 1 (P-1) contained in 40CFR60 Appendix F shall be used to evaluate the effectiveness of Quality Control and Quality Assurance procedures and the quality of data produced by the CEMS to determine compliance with this limit for NOx. Compliance with this limit also satisfies the requirements for 6NYCRR227-2.4(e)(2)(ii), NOx RACT, which specifies an equivalent limit for NOx.

The stationary gas turbine is also subject to NSPS 40 CFR 60 Subpart GG in addition to the limit in Prevention of Significant Deterioration (PSD). The PSD limits of 65 ppmv for No. 2 fuel oil, (dry, corrected to 15% O2) is more restrictive than the 75 ppm limit in Subpart GG. However, the facility must comply with both Subpart GG and PSD limits.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN Upper Permit Limit: 65.0 parts per million by volume (dry, corrected to 15% O2)

Reference Test Method: USEPA 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 1/30/2017.

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

Condition 62: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 62.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 62.2:



Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

During periods of water washing, CO emissions from the gas turbine and maximum in-stack CO emissions from the gas turbine/duct burner shall not exceed 40 lb/hr. The duration of each water wash shall not exceed 2 hours. The mass emission rate (lb/hr) of CO shall be calculated continuously in accordance with the Facility CEMS Monitoring and QA Plans. The calculated mass emission rate and the combustion inlet air temperature shall be used to determine compliance with the mass emission limit.

The CEMS shall meet the requirements specified in the Facility CEMS Monitoring and QA Plans which are based on 40CFR60 Appendix B and Appendix F, the NESCAUM Guidance for CEMS (9/90) and the NYSDEC Air Guide No. 34. Performance Specification No. 4 (PS-4) contained in 40CFR60 Appendix B shall be used to evaluate the CO CEMS. Procedure 1 (P-1) contained in 40CFR60 Appendix F shall be used to evaluate the effectiveness of Quality Control and Quality Assurance procedures and the quality of data produced by the CEMS to determine compliance with this limit for CO.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 601P

Parameter Monitored: CARBON MONOXIDE Upper Permit Limit: 40 pounds per hour Reference Test Method: USEPA Method 10 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 1/30/2017.

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

Condition 63: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 63.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 63.2:

Compliance Certification shall include the following monitoring:



Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

This 0.038 pounds per million Btus emission limit for PM-10 (based on HHV of fuel), from the original PSD permit, applies at all ambient temperatures for all operating loads between 24 MW and 42 MW maximum power output for Processes 006 and 009 and between 80% and 100% power output for Process 007.

Actual and estimated mass emission rates of PM-10 from Process 009 (turbine and duct burner firing on natural gas) derived from stack test data (EPA Method 202 combined with Method 201/201A) and the GE Gas Turbine Performance Estimator for High, Mid and Low loads each at 0, 40 and 100 degrees Fahrenheit (F) were modeled using SCREEN3. Based on the results of the SCREEN3 analysis, it was determined that the maximum emission rate of total PM-10 at 12.8 lb/hr resulted in a maximum 24-hour concentration of total PM-10 at 1.43 ug/m3 and an annual concentration of 0.29 ug/m3. These concentrations are well below the Significant Impact Levels (SILs) (24 hr: 5 ug/m3 and annual: 1 ug/m3) and the National Ambient Air Quality Standards (NAAQS) (24 hr: 150 ug/m3 and annual: 50 ug/m3) for total PM-10 for both the 24-hour and the annual averaging periods (See Air Quality Modeling Analysis of Turbine Generator at Low-Load, prepared by Epsilon Associates, Inc., May 16, 2001). The maximum emission rate based on heat input determined for all loads and temperatures for Process 009 was 0.029 lb/mmBTU.

A stack test of the PM-10 emissions from the gas turbine while firing No. 2 oil (Process 007 with the duct burner firing) showed an average total PM-10 emission rate of 5.3 lb/hr (See Test Report for PM-10 Emissions from a GE Frame 6 while firing Fuel Oil, Indeck-Yerkes Tonawanda Energy Center, prepared by Nicholson Environmental, Inc., December 10, 2004) at 100 % load and average temperature of 52.2 degrees F. The average emission rate for Process 007 at 100% load and 52.2 degrees F was determined to be 0.012 lb/mmBTU.

Since the maximum estimated 24-hour and annual concentrations of total PM-10 are well below the SILs and NAAQS for total PM-10 for all processes, it was determined that the emission rate limit for Processes 006 and 009 could safely be adjusted to 0.038 lbs PM-10/mmBTU. The filterable PM-10 limits specified in the original PSD permit were 0.0053 lb/mmBTU at 80% load and 0.007 lb/mmBTU at 100% load. The filterable PM-10 limit of 0.038lb/mmBTU specified in the original PSD permit for Process 007 will remain the same for total PM-10.



Parameter Monitored: PM-10

Upper Permit Limit: 0.038 pounds per million Btus Reference Test Method: 40CFR51, Appendix M

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 64: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 64.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 64.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The facility shall operate and maintain a CEMS to measure and record CO emissions and to demonstrate compliance with the 10 ppm CO limit. This emission limit for CO applies to the all operating loads between 24 MW and 42 MW maximum power output for Processes 006 and 009 and between 80% and 100% power output for Processes 005 and 007. The CEMS shall meet the requirements specified in the Facility CEMS Monitoring and QA Plan. Performance Specification No. 4 (PS-4) contained in 40CFR60 Appendix B shall be used to evaluate the CO CEMS. Procedure 1 (P-1) contained in 40CFR60 Appendix F shall be used to evaluate the effectiveness of Quality Control and Quality Assurance procedures and the quality of data produced by the CEMS to determine compliance with this limit for CO.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 601P

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 10 parts per million by volume (dry,

corrected to 15% O2)

Reference Test Method: USEPA Method 10



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 1/30/2017.

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

Condition 65: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 65.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 65.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The Facility is subject to BACT requirements under 40CFR52.21 (PSD) for particulate matter (PM). A PSD BACT determination conducted for the original operating permit resulted in the use of clean fuel, i.e. 75% natural gas and 25% No. 2 fuel oil, with no add-on control as BACT for PM. This PSD emission limit for PM of 0.038 lb/mmBTU (based on HHV of fuel) applies to the all loads greater than the minimum allowable load of 80% power output for the gas turbine firing on No. 2 fuel oil without the duct burner firing (Process 007), where initial stack testing was required for compliance. The mass emission rate limit for PM for Process 007 is 17 lb/hr. USEPA Test Method 5, contained in 40CFR60, Appendix A, shall be utilized for the determination of in-stack PM emissions. Additional stack testing may be required to verify compliance and shall be conducted upon request.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.038 pounds per million Btus

Reference Test Method: USEPA METHOD 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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 1/30/2017.



Permit ID: 9-1464-00153/00004 Facility DEC ID: 9146400153

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

Condition 66: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 66.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 66.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The Facility demonstrated compliance with emission limits for NOx and CO at 24 MW, 30 MW and 41 MW output for the gas turbine and duct burner firing on natural gas (Process 009) in a stack test conducted March 21-23, 2001. Therefore, the gas turbine shall never be operated below 24 MW output for Process 006 and Process 009. Indeck-Yerkes must track power output continuously to verify compliance with the minimum allowable power output of 24MW. Daily records must be maintained on-site for five years. Annual Certification and Deviation Reports must be submitted annually and semiannually, respectively.

Parameter Monitored: ELECTRICAL OUTPUT

Lower Permit Limit: 24 megawatt Monitoring Frequency: CONTINUOUS

Averaging Method: MINIMUM-NOT TO FALL BELOW EXCEPT

DURING STARTUP/SHUTDOWN

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 67: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 67.1:

The Compliance Certification activity will be performed for:



Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 67.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The Facility has demonstrated compliance only at loads generating 80% and 100% power output while firing No. 2 fuel oil in the gas turbine. Therefore, the gas turbine shall never be operated below 80% power output for Process 007 (firing of No. 2 fuel oil in the Gas Turbine) and Process 005 (co-firing of natural gas and No. 2 fuel oil in the Gas Turbine). Indeck-Yerkes must track power output continuously to verify compliance with the minimum allowable operating capacity of 80% load. Figure 5 in Appendix A shall be used to verify compliance with this limit at all temperatures and power outputs. Daily records must be maintained on-site for five years and reporting must be conducted semi-annually and annually.

Parameter Monitored: ELECTRICAL LOAD OUTPUT

Lower Permit Limit: 80 percent Upper Permit Limit: 100 percent Monitoring Frequency: CONTINUOUS

Averaging Method: RANGE-NOT TO FALL OUTSIDE OF STATED RANGE EXCEPT DURING STARTUP/SHUTDOWN

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 68: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 68.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 68.2:



Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The Facility is subject to Best Available Control Technology (BACT) requirements under 40CFR52.21 (PSD) for particulate matter (PM). A PSD BACT determination conducted for the original operating permit resulted in the use of clean fuel, i.e. 75% natural gas and 25% No. 2 fuel oil, with no add-on control as BACT for PM. The PSD mass emission limit of 2.5 lb/hr for PM applies to the gas turbine firing on natural gas with or without the duct burner firing (Process 006 and Process 009) at all allowable outputs, where initial stack testing was required for compliance. These processes are also subject to the PSD emission limit (based on HHV of fuel) for PM of 0.007 lb/mmBTU at all allowable loads.

USEPA Test Method 5, contained in 40CFR60, Appendix A, shall be utilized for the determination of in-stack PM emissions. Additional stack testing may be required to verify compliance and shall be conducted upon request.

Parameter Monitored: PARTICULATES Upper Permit Limit: 2.5 pounds per hour

Reference Test Method: Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 69: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 69.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 69.2:

Compliance Certification shall include the following monitoring:



Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The mass emission rate limit of 12.8 lbs/hr for total (filterable + condensable) particulate matter less than 10 microns (PM-10) was established under 40CFR52.21, Prevention of significant deterioration of air quality (PSD). A PSD Best Available Control Technology (BACT) determination conducted for the original operating permit resulted in the use of clean fuel, i.e. 75% natural gas and 25% No. 2 fuel oil, with no add-on control as BACT for PM-10. This PSD emission limit for total PM-10 applies to the gas turbine (with (Process 009) or without (Process 006) the duct burner) while firing natural gas at all combustion inlet air temperatures and power outputs equal to and greater than 24 MW.

The original PSD permit contained a single emission limit of 2.5 lbs/hr and 2.6 lb/hr for particulate matter (PM) and PM-10 from Process 006 and Process 009, respectively. The limit for PM-10 pertained to the filterable portion of PM-10 only and was based on in-stack performance data for the gas turbine provided by General Electric using Method 201 or 201A. Since that permit was issued, NYSDEC policy regarding test methods for measuring PM-10 has changed. The old method (EPA Method 201 or 201A) counted filterable PM-10, but did not count condensible particulate matter. The new method (EPA Method 202 combined with Method 201 or 201A) measures both of these contaminants added together to get total PM-10.

To update PM-10 emissions to include both the filterable and condensible portions (total PM-10), a stack test on in-stack emissions from Process 009 was conducted on March 21-23, 2001 to determine the mass emission rate of total PM-10 using Method 201A and Method 202 (see Emission Test Report, Indeck-Yerkes Energy Center, prepared by E3-Killam, Inc., May 11, 2001). Actual and estimated mass emission rates of PM-10 from Process 009 (turbine and duct burner firing on natural gas) derived from stack test data and the GE Gas Turbine Performance Estimator for High, Mid and Low loads each at 0, 40 and 100 degrees Fahrenheit (F) showed that the maximum mass emission rate of 12.8 lbs/hr for total PM-10 occurred at high load and 0 degrees Fahrenheit. The corresponding emission rate for filterable PM-10 was 2.6 lb/hr.

In accordance with NYSDEC Policy: Regulation and Verification of Particulate Matter and PM-10 Emissions, the 2007 permit renewal was adjusted to account for the condensable emissions that have always been present but



were not previously measured. The permit limit of 12.8 lb/hr is the sum of the old limit plus the amount of condensable determined from the emission test of the facility performed in March 2001 and the GE Gas Turbine Performance Estimator. This does not reflect a loosening of PM-10 limit just a change in the way PM-10 is measured.

Since the total PM-10 emissions were determined from one stack test, under specific conditions, a future stack test under different conditions may result in a different mass emission rate. If emissions in excess of 12.8 pounds per hour are measured in subsequent stack tests, the permittee shall rely on air quality modeling analyses to determine if a significant impact has occurred. Additional stack testing may be required to verify compliance in the future and shall be conducted upon request. Test Methods 201 or 201A and 202, contained in 40CFR51, Appendix M, shall be utilized for the determination of in-stack total (filterable + condensible) PM-10 emissions.

Parameter Monitored: PM-10

Upper Permit Limit: 12.8 pounds per hour

Reference Test Method: 40CFR51, Appendix M, USEPA Method 201/201A/202

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

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 1/30/2017.

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

Condition 70: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 70.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 70.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:



To determine the mass emission rate limit at the current combustion inlet temperature for NOx, the facility shall utilize the graphs shown in Figures 3 & 4 in Appendix A of the Title V permit for the turbine firing on No. 2 fuel (Process 007 and Process 005). These graphs illustrate the temperature dependency of the mass emission rate limits for NOx at minimum (80% power output) and full (100% power output) loads for the turbine. The graphs were generated based on manufacturer's guarantees from General Electric for the turbine. Linear interpolation of these graphs at current combustion inlet temperature shall be utilized to determine the mass emission rate limits for loads operating between the minimum and full loads for Process 007 and Process 005.

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 1/30/2017.

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

Condition 71: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 71.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Item 71.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The CEMS shall be audited at least once each calendar quarter in accordance with 40CFR60, Appendix B and Appendix F. Successive quarterly audits shall occur no closer than 2 months. A Relative Accuracy Test Audit (RATA) must be conducted at least once every four calendar quarters. A Cylinder Gas Audit (CGA) may be conducted in three of four calendar quarters, but in no more than three quarters in succession.

Reference Test Method: PS-2, PS-4, P-1 Monitoring Frequency: QUARTERLY

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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



Permit ID: 9-1464-00153/00004 Facility DEC ID: 9146400153

Condition 72: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 72.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

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

Item 72.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

The facility shall operate and maintain a CEMS to measure and record NOx emissions and to demonstrate compliance with the NOx limit. Actual and estimated mass emission rates of NOx for Process 009 at 41 MW, 30 MW and 24 MW power outputs were modeled at 0, 40 and 100 degrees Fahrenheit. Refined ISCST3 modeling results showed that the predicted maximum annual concentration of NO2 (41 MW, 0 degree Fahrenheit) is 0.41 ug/m3, which is below the Significant Impact Level of 1 ug NO2/m3 and the National Ambient Air Quality Standard (NAAQS) of 100 ug NO2/m3 for an annual averaging period (See Air Quality Modeling Analysis of Turbine Generator at Low-Load, prepared by Epsilon Associates, Inc., May 16, 2001). Based on these results, the in-stack mass emission rates from both Process 006 and Process 009 shall not exceed 88 lb/hr of NOx for operating loads equal to or greater than 24 MW at any combustion inlet air temperature. Mass emission rates of NOx shall be determined in accordance with the Acid Rain and Subpart H NOx Emissions Monitoring Plan (December 2001) for Indeck-Yerkes.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 88 pounds per hour Reference Test Method: Reference 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 1/30/2017.

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

Condition 73: Compliance Certification



Permit ID: 9-1464-00153/00004 Facility DEC ID: 9146400153

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 73.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 73.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

> The mass emission rate limit for total (filterable + condensable) particulate matter less than 10 microns (PM-10) established under 40CFR52.21, Prevention of significant deterioration of air quality (PSD) is 21.5 lbs/hr. A PSD Best Available Control Technology (BACT) determination conducted for the original operating permit resulted in the use of clean fuel, i.e. 75% natural gas and 25% No. 2 fuel oil, with no add-on control as BACT for PM-10. This PSD emission limit for total PM-10 applies to the gas turbine firing No. 2 fuel oil (with or without the duct burner firing) at all ambient temperatures and loads equal to and greater than 80%.

The original PSD permit contained a single emission limit for particulate matter (PM) and PM-10 of 17 lbs/hr at base load (100% power output) and 15 lbs/hr at the minimum allowable load (80% power output) for the gas turbine firing on No. 2 fuel oil without the duct burner firing (Process 007). The limit for PM-10 pertained to the filterable portion of PM-10 only and was based on in stack performance data for the gas turbine provided by General Electric using Method 201 or 201A. Since that permit was issued, NYSDEC policy regarding test methods for measuring PM-10 has changed. The old method (EPA Method 201 or 201A) counted filterable PM-10, but did not count condensible particulate matter. The new method (EPA Method 202 combined with Method 201 or 201A) measures both of these contaminants added together to get total PM-10.

To update PM-10 emissions to include both the filterable and condensible portions (total PM-10), a stack test on in-stack emissions from Process 007 (with the duct burner firing) was conducted on November 17, 2004 to determine the mass emission rate of total PM-10 using Method 201A



and Method 202 (See Test Report for PM-10 Emissions from a GE Frame 6 while firing Fuel Oil, Indeck-Yerkes Tonawanda Energy Center, prepared by Nicholson Environmental, Inc., December 10, 2004). Stack test results showed that the maximum mass emission rate of filterable PM-10 at an average maximum load of 38.6 MW and 52.2 degrees Fahrenheit was 0.8 lbs/hr and the condensible portion of PM-10 was 4.5 lb/hr

In accordance with NYSDEC Policy: Regulation and Verification of Particulate Matter and PM-10 Emissions, the new permit is being adjusted to account for the condensible emissions that have always been present but were not previously measured. The new permit limit is the sum of the old limit (17 lbs/hr) plus the amount of condensibles (4.5 lbs/hr) found in an emission test of the facility performed in November 2004. This does not reflect a loosening of PM-10 limit just a change in the way PM-10 is measured.

Since the total PM-10 emissions were determined from one stack test, under specific conditions, a future stack test under different conditions may result in a different mass emission rate. If emissions in excess of 21.5 pounds per hour are measured in subsequent stack tests, the permittee shall rely on air quality modeling analyses to determine if a significant impact has occurred. Additional stack testing may be required to verify compliance in the future and shall be conducted upon request. Test Methods 201 or 201A and 202, contained in 40CFR51, Appendix M, shall be utilized for the determination of in-stack total (filterable + condensible) PM-10 emissions.

Parameter Monitored: PM-10

Upper Permit Limit: 21.5 pounds per hour Reference Test Method: USEPA 201/201A/202

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 74: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 74.1:

The Compliance Certification activity will be performed for:



Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 74.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

The 15 lbs/hr CO limit while firing natural gas was determined from Actual and estimated mass emission rates of CO for Process 009 (turbine and duct burner firing on natural gas) were determined for High, Mid and Low loads at 0, 40 and 100 degrees Fahrenheit using stack test data and the GE Gas Turbine Performance Estimator. The maximum mass emission rate of 13 lb CO/hr occurred at high load (100%) and 0 degrees Fahrenheit (See Air Quality Modeling Analysis of Turbine Generator at Low-Load, prepared by Epsilon Associates, Inc., May 16, 2001). Using the maximum mass emission rate for CO, a SCREEN3 Analysis showed maximum 1-hour and 8-hour concentrations of CO at 3.58 ug/m3 and 2.62 ug/m3, respectively. For averaging periods of 1-hour and 8-hours, the Significant Impact Levels (SILs) for CO are 2000 ug/m3 and 500 ug/m3, respectively and the National Ambient Air Quality Standards (NAAQS) are 40,000 ug/m3 and 10,000 ug/m3, respectively. Since the maximum estimated 1-hour and 8-hour concentrations of CO at the maximum emission rate of CO are well below the SILs and NAAQS for CO, it was determined that the mass emission rate limit could safely be increased to 15 lbs CO/hr. This emission limit for CO applies at all ambient temperatures for all operating loads between 24 MW and 42 MW maximum power output for Processes 006 and 009 and between 80% and 100% power output for Processes 005 and 007. The mass emission rates of CO for all processes and ambient temperatures shall be determined in accordance with the current CEMS Quality Assurance Manual.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 601P

Parameter Monitored: CARBON MONOXIDE Upper Permit Limit: 15 pounds per hour Reference Test Method: USEPA Method 10 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 1/30/2017.

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

Condition 75: Compliance Certification



Permit ID: 9-1464-00153/00004 Facility DEC ID: 9146400153

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 75.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Item 75.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Combustion inlet air temperature must be continuously measured and recorded. Measurements must be accurate to

within $\pm -3 \deg F$.

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 1/30/2017.

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

Condition 76: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 76.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Item 76.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The total annual water washing occurrences for the GE Frame 6 gas turbine is limited to 2250 hours per year on a

rolling daily basis.

Annual hour use rolled daily shall be reported in the quarterly reports.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 2250 hours per year Monitoring Frequency: CONTINUOUS

Averaging Method: ANNUAL TOTAL ROLLED DAILY



Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 77: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 77.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Item 77.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The gas turbine shall only fire natural gas, No. 2 fuel oil or a combination of both. The duct burner shall only fire natural gas. The type and amount of fuel burned in the gas turbine and duct burner must be monitored and recorded. Data must be accurate to within +/- 5%.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 78: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 78.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

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

Item 78.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

The facility shall operate and maintain a CEMS to measure and record NOx emissions and to demonstrate compliance



Permit ID: 9-1464-00153/00004 Facility DEC ID: 9146400153

> with the 119 pound per hour NOx limit. This emission limit for NOx applies to loads equal to or greater than 80% power output for the turbine firing on No. 2 oil (Process 007) or a combination of natural gas and No. 2 oil (Process 005). Mass emission rates of NOx shall be determined in accordance with the Acid Rain and Subpart H NOx Emissions Monitoring Plan (December 2001) for Indeck-Yerkes. The mass emission rate limit of 119 lb NOx/hr specified in this condition is for 100% load with a combustion inlet air temperature of 48 degrees Fahrenheit, only. The calculated mass emission rates and the the corresponding combustion inlet air temperatures shall be used to determine compliance with the applicable mass emission limits specified in Figure 3 (80% power output) and Figure 4 (100% power output) in Appendix A of the Title V permit. Linear interpolation of these graphs at current combustion inlet air temperature shall be utilized to determine the mass emission rate limits for all other allowable loads. Mass emission rates of NOx shall be determined in accordance with the Acid Rain and Subpart H NOx Emissions Monitoring Plan (December 2001) for Indeck-Yerkes.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN Upper Permit Limit: 119 pounds per hour Reference Test Method: USEPA 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 1/30/2017.

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

Condition 79: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 79.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 **CARBON MONOXIDE**

Item 79.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:



CO EMISSIONS LIMIT FOR PERIODS OF STARTUP or SHUTDOWN OF THE GAS TURBINE (GT) WHILE FIRING NATURAL GAS (Process 006 and Process 009):

The original PSD permit provided a three hour period during which startup or shutdown of the stationary gas turbine could occur without enforcement of the normal operating emission limits for CO. During these periods of thermal instability, compliance with the CO limits established under PSD was technologically infeasible. The stationary gas turbine requires up to three hours of operation before thermal stability and combustion efficiency are obtained and CO emissions are reduced. During shutdown there may also be unstable combustion which generates CO emissions in excess of the established limits. The CO mass emission limit specified in this condition has been established for the stationary gas turbine during periods of start-up and shutdown, only.

- 1.) Firing natural gas, the combustion gas turbine shall not emit more than 407 pounds of CO during a startup or shutdown period. Startup and shutdown periods shall not exceed 180 minutes (three hours). A startup period begins when the combustion process is initiated from shutdown status and continues until the lowest allowable operating load is attained and the CO emissions meet the CO emission limits. A shutdown period begins when the unit goes below the lowest level of stable operation and continues until the fuel supply is completely turned off.
- 2.) The hourly emissions for any partial hour after the end of the startup period or before a shutdown period, will be calculated following the procedures in 40CFR Part 60, where there must be at least one minute of data outside the startup or shutdown period to be a valid 15-minute period. The calculated hourly average must comply with the normal operating emission limits.
- 3.) The total emissions from each startup and shutdown period shall be recorded. Data recording should be adjusted to reflect the CEM response time.
- 4.) CEM calibrations shall be avoided during the startup or shutdown periods when feasible.
- 5.) Any occurrence of excess emissions shall be reported to the Department promptly and shall include the cause, the corrective action taken and the actual mass emissions. This information shall also be included in the semi-annual compliance report.



Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 601P

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 407 pounds

Reference Test Method: 40 CFR Part 60, Appendix B, PS 4A

Monitoring Frequency: CONTINUOUS

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED PER

OCCURRENCE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 80: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 80.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 80.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

CO EMISSIONS LIMIT FOR PERIODS OF STARTUP or SHUTDOWN OF THE GAS TURBINE (GT) WHILE FIRING FUEL OIL (Process 007):

The original PSD permit provided a three hour period during which startup or shutdown of the stationary gas turbine could occur without enforcement of the normal operating emission limits for CO. It takes up to three hours of operation for the GT to reach efficient combustion and the CO emissions are reduced. During shutdown there may be unstable combustion which generates CO emissions. During these periods of thermal instability, compliance with the CO limits established under PSD was technologically infeasible. The stationary gas turbine requires up to three hours of operation before thermal stability and combustion efficiency are obtained and CO emissions are reduced. During shutdown there may also be unstable combustion which generates CO emissions in excess of the established limits. The CO mass emission limit specified in this condition has been established for the stationary gas turbine during periods of start-up and



shutdown, only.

- 1.) Firing fuel oil, the combustion gas turbine shall not emit more than 217 pounds of CO during a startup or shutdown period. Startup and shutdown periods shall not exceed 180 minutes (three hours). A startup period begins when the combustion process is initiated from shutdown status and continues until the lowest allowable operating load is attained and the CO emissions meet the CO emission limits. A shutdown period begins when the unit goes below the lowest level of stable operation and continues until the fuel supply is completely turned off.
- 2.) The hourly emissions for any partial hour after the end of the startup period or before a shutdown period, will be calculated following the procedures in 40CFR Part 60, where there must be at least one minute of data outside the startup or shutdown period to be a valid 15-minute period. The calculated hourly average must comply with the normal operating emission limits.
- 3.) The total emissions from each startup and shutdown period shall be recorded. Data recording should be adjusted to reflect the CEM response time.
- 4.) CEM calibrations shall be avoided during the startup or shutdown periods when feasible.
- 5.) Any occurrence of excess emissions shall be reported to the Department promptly and shall include the cause, the corrective action taken and the actual mass emissions. This information shall also be included in the semi-annual compliance report.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 601P

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 217 pounds

Reference Test Method: 40 CFR Part 60, Appendix B, PS 4A

Monitoring Frequency: CONTINUOUS

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED PER

OCCURRENCE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 81: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.332(a)(1), NSPS Subpart GG



Item 81.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

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

Item 81.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of 75 ppm at 15 percent oxygen on a dry basis. The Indeck-Yerkes Energy Center operates a gas turbine (Processes 005, 006, 007, and 009, Emission Source Y00GT) equipped with steam injection (ES Y00SI) to control NOx emissions. A continuous emission monitor system (CEMS) in the gas turbine/duct burner exhaust stack is used to monitor NOx emissions from the gas turbine. A relative accuracy test audit of the CEMS is conducted annually.

The stationary gas turbine is also subject to Prevention of Significant Deterioration (PSD), 40 CFR Part 52. This limit of 75 ppm is less restrictive than the PSD NOx emission limits of 42 ppmv and 65 ppmv (dry, corrected to 15% O2) for the firing of natural gas and No. 2 fuel oil, respectively in the gas turbine. However, the facility must comply with both Subpart GG and PSD limits.

Manufacturer Name/Model Number: NOX- California Analytical Instruments (CAI), Model 600 **CLD**

Parameter Monitored: NITROGEN OXIDE- (USE 0NY210-00-0)

Upper Permit Limit: 75 parts per million by volume (dry,

corrected to 15% O2)

Reference Test Method: EPA Method 7E and either EPA Method 3 or 3A

Monitoring Frequency: CONTINUOUS

Averaging Method: 4-HOUR ROLLING AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 82: Exemption from NOx standard.

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.332(f), NSPS Subpart GG



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Item 82.1:

This Condition applies to Emission Unit: Y-00001

Item 82.2:

Gas turbines using water or steam injection to control NOx are exempt from section 332.a when ice fog is deemed a traffic hazard.

Condition 83: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.333(b), NSPS Subpart GG

Item 83.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 83.2:

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 stationary gas turbine subject to 40CFR60 Subpart GG shall burn in that turbine any fuel which contains sulfur in excess of 0.8 percent by weight. The owner or operator shall monitor sulfur content of the fuel being fired in the turbine according to the frequency specified in 40CFR60.334(i).

The facility BACT limit of 0.3% sulfur by weight for fuel oil, established under 40CFR52.21(j), supersedes the limit of 0.8% sulfur by weight required under 40CFR60.333 for fuel oil fired in stationary gas turbine (Process 007).

Parameter Monitored: SULFUR DIOXIDE Upper Permit Limit: 0.8 percent by weight

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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



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Condition 84: CEMS

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.334(b), NSPS Subpart GG

Item 84.1:

This Condition applies to Emission Unit: Y-00001

Item 84.2:

The owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NOX emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NOX and O2 monitors. As an alternative, a CO2 monitor may be used to adjust the measured NOX concentrations to 15 percent O2 by either converting the CO2 hourly averages to equivalent O2 concentrations using Equation F–14a or F–14b in appendix F to 40 CFR Part 75 and making the adjustments to 15 percent O2, or by using the CO2 readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as specified in 40 CFR 60.334(b)(1), (2) and (3).

Condition 85: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:40CFR 60.334(h)(1), NSPS Subpart GG

Item 85.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 85.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

- h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:
- (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10) (for liquid fuels, ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see §60.17. The fuel analyses may be performed by the owner



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or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency).

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT Upper Permit Limit: 0.8 percent by weight

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 86: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.334(h)(2), NSPS Subpart GG

Item 86.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Item 86.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Indeck-Yerkes is not required to monitor the nitrogen content of the fuel combusted in the turbine since they do not claim an allowance for fuel bound nitrogen to calculate the NOx limit under 40CFR60.332 (1).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 87: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:40CFR 60.334(h)(3), NSPS Subpart GG

Item 87.1:



The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 87.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Renewal 2/Mod 1/Active

Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in \$60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

- (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
- (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

In accordance with Appendix D to Part 75, Section 2.3.2.4 (a)(2), Indeck-Yerkes submitted historical fuel sampling data for the previous 12 months documenting the total sulfur content and percentage by volume of methane in the natural gas used to fire the stationary gas turbine. The results of all sample analyses obtained by Indeck-Yerkes from January 2005 through January 2006 demonstrate that each sample result meets the definition of natural gas in 40CFR331(u). Certificates of Analysis for natural gas samples taken each month at the Indeck-Yerkes Plant show a total sulfur content of < 0.02 grains/100 scf, each and methane contents in the range of 93.95% to 96.01% by volume. In accordance with 40CFR60.331(u) natural gas must have a total sulfur content of 20.0 grains/100 scf or less and either be composed of at least 70 percent methane by volume or have a gross calorific value between



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950 and 1100 British thermal units (Btu) per standard cubic foot. Since the fuel qualifies as natural gas based on fuel sampling and analysis, Indeck-Yerkes shall sample the fuel for total sulfur content at least annually (at least one sample must be taken in each calendar year) and when the fuel supply source changes.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: SULFUR CONTENT Upper Permit Limit: 20 grains per 100 scf

Monitoring Frequency: MINIMUM - ONCE PER CALENDAR YEAR Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 88: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.334(i)(1), NSPS Subpart GG

Item 88.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

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:

- (i) The frequency of determining the sulfur content of the fuel shall be as follows:
- (1) Fuel oil. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).

In addition, this permit also contains a more stringent sulfur requirements from Subpart 225-1: Fuel Composition



and Use - Sulfur Limitations. Subpart 225 restricts the facility from burning #2 fuel oil (distillate) that has a higher sulfur content than 0.0015 percent sulfur by weight (15 ppm).

Complying with the Subpart 225 limit of 15ppm also satisfies this condition.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT Upper Permit Limit: 0.8 percent by weight

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 89: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.334(j), NSPS Subpart GG

Item 89.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001

Item 89.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

(j) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

- (1) NITROGEN OXIDES.
- (iii) For turbines using NOX and diluent CEMS:



- (A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NOX concentration exceeds the applicable emission limit in \$60.332(a)(1) or (2). For the purposes of this subpart, a ¿4-hour rolling average NOX concentration; is the arithmetic average of the average NOX concentration measured by the CEMS for a given hour (corrected to 15 percent O2 and, if required under \$60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NOX concentrations immediately preceding that unit operating hour.
- (B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NOX concentration or diluent (or both).
- (C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).
- (2) SULFUR DIOXIDE. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
- (ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the



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delivery has been burned, the owner or operator may resume using the as-delivered sampling option.

(iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 90: Facility Subject to Title IV Acid Rain Regulations and Permitting

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:40 CFR Part 72

Item 90.1:

This Condition applies to Emission Unit: Y-00001

Item 90.2:

This facility is subject to the Title IV Acid Rain Regulations found in 40 CFR Parts 72, 73, 75, 76, 77 and 78. The Acid Rain Permit is an attachment to this permit.

Condition 91: Multiple combustion sources.

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 6 NYCRR 227-1.2 (b)

Item 91.1:

This Condition applies to Emission Unit: Y-00001 Process: 007

Item 91.2:

The total heat input of all furnaces connected to the same stack or pollution control device shall be used to calculate the permissible particulate emission rate.

Condition 92: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A



Item 92.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001 Emission Point: 00001

Process: 005

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:

NOX MASS EMISSION RATE LIMIT FOR THE CO-FIRING OF NATURAL GAS and NO. 2 FUEL OIL IN THE GAS TURBINE (PROCESS 005):

When co-firing natural gas and fuel oil in the gas turbine, the source may not exceed the emission limit as calculated below. This limit is based on the heat input corresponding to the higher heating value of each fuel burned. Since the Facility has demonstrated compliance only at loads generating 80% and 100% power output while firing No. 2 fuel oil in the gas turbine, the gas turbine shall never be operated below 80% power output for Process 005. The hourly emissions and the calculated limit must be recorded each hour. Any emissions above the limit should be reported following the requirements of 60.7(c) and submitted quarterly.

E = ((88 lb/hr x Hng)+(Eo x Ho))/(Hng+Ho) where:

E is the nitrogen oxide (NOx) limit in pounds per hour for the co-firing of natural gas and No. 2 fuel oil in the gas turbine.

88 lb/hr is the PSD mass emission rate limit for NOx for the firing of natural gas in the gas turbine at all allowable loads and any combustion inlet air temperature (1-hour average).

Hng is the heat input from natural gas during the hour, calculated using the higher heating value of the most recent natural gas analysis.

Eo is the PSD NOx mass emission rate limit for the firing of No. 2 fuel oil in the gas turbine, which is dependent on load and combustion inlet air temperature (1-hour average). The NOx mass emission rate limit at 100% load and 48 degrees Fahrenheit is 119 lb/hr. To determine the



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> mass emission rate limit for the firing of No. 2 fuel oil in the gas turbine at the current combustion inlet air temperature (1-hour average) for either full (100%) or minimum (80%) loads, the facility shall utilize the graphs shown in Figures 3 & 4 in Appendix A of the Title V permit. Linear interpolation of these graphs at current combustion inlet air temperature (1-hour average) shall be utilized to determine the mass emission rate limits for loads operating between the minimum and full loads.

Ho is the heat input from fuel oil during the hour, based on the highest Gross Calorific Value (GCV) for the previous calender year unless a higher sample value is obtained during the current calender year, in accordance with 40CFR Part 75 App D, sec 2.2.

Indeck Yerkes must report on a quarterly basis if emissions stayed within pound per hour limit.

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN Upper Permit Limit: 119 pounds per hour

Reference Test Method: 40 CFR Part 60, Appendix B, PS 2

Monitoring Frequency: CONTINUOUS

Averaging Method: 1 HOUR MAXIMUM - NOT TO BE EXCEEDED AT

ANY TIME

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 93: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 93.1:

The Compliance Certification activity will be performed for:

Emission Point: 00001 Emission Unit: Y-00001

Process: 005

Regulated Contaminant(s):

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

Item 93.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM) Monitoring Description:

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NOX EMISSIONS LIMIT FOR THE CO-FIRING OF NATURAL GAS and NO. 2 FUEL OIL IN THE GAS TURBINE (PROCESS 005):

When co-firing natural gas and fuel oil in the gas turbine (Process 005), the source may not exceed the emission limit as calculated below. This limit is based on the heat input corresponding to the higher heating value of each fuel burned. Since the Facility has demonstrated compliance only at loads generating 80% and 100% power output while firing No. 2 fuel oil in the gas turbine, the gas turbine shall never be operated below 80% power output for Process 005. The hourly emissions and the calculated limit must be recorded each hour. Any emissions above the limit should be reported following the requirements of 60.7(c) and submitted quarterly.

E = ((42 ppmv x Hng) + (65 ppmv x Ho))/(Hng + Ho)

where:

E is the nitrogen oxide (NOx) limit in parts per million by volume for the co-firing of natural gas and No. 2 fuel oil in the gas turbine.

42 ppmv is the PSD emission limit for NOx for the firing of natural gas in the gas turbine at all allowable loads and any combustion inlet air temperature.

Hng is the heat input from natural gas during the hour, calculated using the higher heating value of the most recent natural gas analysis.

65 ppmv is the PSD NOx emission limit for the firing of No. 2 fuel oil in the gas turbine, at all allowable loads and any combustion inlet air temperature.

Ho is the heat input from fuel oil during the hour, based on the highest Gross Calorific Value (GCV) for the previous calender year unless a higher sample value is obtained during the current calender year, in accordance with 40CFR Part 75 App D, sec 2.2.

Facility shall report if emissions exceed or stay below the 65ppm NOx limit

Manufacturer Name/Model Number: California Analytical Instruments (CAI), Model 600 CLD

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 65 parts per million by volume (dry,

corrected to 15% O2)

Reference Test Method: 40 CFR Part 60, Appendix B, PS 2

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 1/30/2017.

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

Condition 94: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 94.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001 Emission Point: 00001

Process: 007

Item 94.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Distillate (No. 2) Fuel oil use in the gas turbine and auxiliary boiler is limited to 1440 hours per year each, calculated on a daily rolling basis. Records of hours of operation shall be maintained and made available for inspection upon request.

When the gas turbine co-fires natural gas and No. 2 fuel oil (Process 005), the hours operated on No. 2 oil shall be calculated as follows:

Op Hrs = (Tot Op Hr*Ho)/(Ho + Hng)

where:

Op Hrs is the number of hours that is apportioned to the operation of the gas turbine on No. 2 oil during the co-firing of natural gas and No. 2 oil, which must be included in the daily rolling total of hours for fuel oil use.

Tot Op Hr is the total hours that the gas turbine co-fires natural gas and No. 2 oil per event, excluding shutdown periods.

Ho is the total heat input from fuel oil during the co-firing of natural gas and No. 2 fuel oil, based on the highest Gross Calorific Value (GCV) for the previous calender year unless a higher sample value is obtained during the current calender year, in accordance with 40CFR



Part 75 App D, sec 2.2.

Hng is the total heat input from natural gas during the co-firing of natural gas and No. 2 fuel oil, calculated using the higher heating value of the most recent natural gas analysis.

The total rolling hours of operation must be submitted with each quarterly report.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 1440 hours per year

Monitoring Frequency: HOURLY

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

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 95: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 95.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00001 Emission Point: 00001 Process: 009 Emission Source: Y00DB

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

CAS No: 0NY075-00-0 PARTICULATES

Item 95.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The Facility is subject to BACT requirements under 40CFR52.21 (PSD) for particulate matter (PM) and particulate matter less than 10 microns (PM-10). A PSD BACT determination conducted for the original operating permit resulted in the use of clean fuel, i.e. 75% natural gas and 25% No. 2 fuel oil, with no add-on control as BACT for PM and PM-10. This PSD emission limit of 0.005 lb/hr (based on HHV of fuel) is for both PM and PM-10 and applies to the duct burner firing on natural gas (Process 009, Emission Source Y00DB), where initial stack testing was required for compliance. The mass emission rate limit for this emission source for both PM and PM-10 is 0.1 lb/hr. USEPA Test Method 5, contained in 40CFR60,



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Appendix A, shall be utilized for the determination of in-stack PM emissions. Test Methods 201 or 201A and 202, contained in 40CFR51, Appendix M, shall be utilized for the determination of in-stack total (filterable + condensible) PM-10 emissions. Additional stack testing may be required to verify compliance and shall be conducted upon request.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.005 pounds per million Btus

Reference Test Method: METHOD 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 96: Emission limits based on heat input

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 96.1:

This Condition applies to Emission Unit: Y-00002

Item 96.2:

All emission limits based on heat input shall correspond to the Higher Heating Value (HHV) of the fuel burned.

Condition 1-2: Compliance Certification

Effective between the dates of 07/03/2018 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Replaces Condition(s) 102

Item 1-2.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Item 1-2.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The boiler management system controls will ensure the auxiliary boiler cannot fire greater than 99MMBtu/hr. A Semi-annual deviation report shall be submitted stating



any deviations from this condition. In addition, fuel usage records containing the high heating value of the fuel used shall be maintained onsite and made available to the Department upon request.

Monitoring Frequency: HOURLY

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -

SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2019.

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

Condition 97: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 97.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 97.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The mass emission rate limit for PM-10 for Process 010 and Process 011 is 11.3 lb/hr. This emission limit for PM-10, based on the Higher Heating Value (HHV) of fuel, applies to the auxiliary boiler firing on natural gas (Process 010) or No. 2 fuel oil (Process 011), where initial stack testing was required for compliance.

Test Method 201 or 201A, contained in 40CFR51, Appendix M, shall be utilized for the determination of in-stack PM-10 emissions. Additional stack testing may be required to verify compliance.

Parameter Monitored: PM-10

Upper Permit Limit: 11.3 pounds per hour Reference Test Method: 201 or 201A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.



The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

Condition 98: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 98.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Regulated Contaminant(s):

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

Item 98.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

This 0.20 lbs/MMBtu emission limit for NOx, established under the original PSD Permit and based on the Higher Heating Value (HHV) of fuel, applies to the auxiliary boiler firing on natural gas (Process 010) or No. 2 fuel oil (Process 011). The initial stack test, conducted February 1991, verified compliance with an average emission rate for NOx of 0.14 lb/mmBTU while firing natural gas and 0.12 lb/mmBTU while firing distillate (No. 2) oil. Additional stack testing may be required to verify continued compliance.

The presumptive NOx RACT limit of 0.08 lbs/MMBtu specified under 6NYCRR227-2.4(c)(1)(ii) for EU Y-00002, Process 010 and Process 011 supercede this PSD limit. This limit became effective on July 1, 2014.

A stack test was completed on September 1, 2015 only firing natural gas (process 10). The test yielded an emission rate for NOx of 0.07 lbs/MMBtu.

Reference Test Method: Method 7, 7E, or 19 40 CFR Part 60, Appendix A Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 99: Compliance Certification Effective between the dates of 11/08/2016 and 11/07/2021



Applicable Federal Requirement:40CFR 52.21(j), Subpart A

Item 99.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 99.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

This emission limit of 0.038 lbs/MMbtu for CO, established under the original PSD Permit and based on the Higher Heating Value (HHV) of fuel, applies to the auxiliary boiler firing on natural gas (Process 010) or No. 2 fuel oil (Process 011). The initial stack test, conducted February 1991, verified compliance with an average emission rate for CO of 0.023 lb/mmBTU while firing natural gas and 0.024 lb/mmBTU while firing distillate (No. 2) oil. Additional stack testing may be required to verify continued compliance.

Parameter Monitored: CARBON MONOXIDE Upper Permit Limit: 0.038 pounds per million Btus Reference Test Method: Pt 60, AppA, Method 10

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 100: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 100.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10



Item 100.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This emission limit of 0.1 lbs/MMbtu for PM-10, is based on the Higher Heating Value (HHV) of fuel and applies to the auxiliary boiler firing on natural gas (Process 010) or No. 2 fuel oil (Process 011), where initial stack testing was required for compliance.

Test Method 201 or 201A, contained in 40CFR51, Appendix M, shall be utilized for the determination of in-stack PM-10 emissions. Additional stack testing may be required to verify compliance.

Parameter Monitored: PM-10

Upper Permit Limit: 0.1 pounds per million Btus

Reference Test Method: 201 or 201A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 101: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 101.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 101.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

This mass emission rate limit of 4.3 lbs/hr for CO, established under the original PSD Permit, applies to the auxiliary boiler firing on natural gas (Process 010) or No. 2 fuel oil (Process 011). The initial stack test, conducted February 1991, verified compliance with an average mass emission rate for CO of 2.85 lbs/hr while firing natural gas and 2.64 lb/hr while firing distillate



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> (No. 2) oil. Additional stack testing may be required to verify continued compliance.

A stack test was completed on September 1, 2015 for process 10. The test yielded an emission rate for CO of 2.56 lbs/hr.

Parameter Monitored: CARBON MONOXIDE Upper Permit Limit: 4.3 pounds per hour

Reference Test Method: Pt 60, AppA, Method 10

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 103: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 103.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Regulated Contaminant(s):

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

Item 103.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This mass emission rate limit of 22.6 lbs/hr for NOx, established under the original PSD Permit, applies to the auxiliary boiler firing on natural gas (Process 010) or No. 2 fuel oil (Process 011). The initial stack test, conducted February 1991, verified compliance with an average mass emission rate for NOx of 16.08 lbs/hr while firing natural gas and 12.07 lb/hr while firing distillate (No. 2) oil. Additional stack testing may be required to verify continued compliance.

Parameter Monitored: OXIDES OF NITROGEN Upper Permit Limit: 22.6 pounds per hour

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 1-HOUR AVERAGE



Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 104: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 63, Subpart JJJJJJ

Item 104.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 104.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility's emissions for Hazardous Air Pollutants (HAPs) are below 10 tons per year, which makes them an area source for HAPs. Therefore, should the auxiliary boiler run on oil for 48 hours or more, it would meet the definition of an oil fired boiler under Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, and must then comply with the requirements of this regulation.

When a boiler becomes subject to this rule,

Submit notification of such a change within 30 days of the change [§63.11225(g)].

Demonstrate compliance with the rule within 180 days of the change [63.00210(h)].

The compliance requirements of this rule are not included in this permit because the facility anticipates burning natural gas for the foreseeable future.

Subpart JJJJJJ (6J's), defines oil subcategory as follows;

Oil subcategory (oil fired) includes any boiler that burns any liquid fuel and is not in either the biomass or coal subcategories. Gas-fired boilers that burn liquid fuel only during periods of gas curtailment, gas supply



interruptions, startups, or for periodic testing are not included in this definition. Periodic testing on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

The fuel use records shall be kept on site and made available for review upon request and submitted to the department upon request.

Monitoring Frequency: When firing distillate fuel oil Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

Condition 105: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 105.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Process: 011

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 105.2:

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 should the facility burn oil:

- 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.

Upper Permit Limit: 0.10 pounds per million Btus Reference Test Method: Method 5



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Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

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 1/30/2017.

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

Condition 106: Exemption from the averaging period.

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 106.1:

This Condition applies to Emission Unit: Y-00002

Process: 011

Item 106.2:

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

Condition 107: Enforceability

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 107.1:

This Condition applies to Emission Unit: Y-00002

Process: 011

Item 107.2:

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

Condition 108: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 108.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Process: 011

Regulated Contaminant(s):



CAS No: 0NY075-00-0 PARTICULATES

Item 108.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

On and after the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Compliance with this requirement shall be verified as specified under the facility level condition for 6NYCRR227-1.3. Which Requires daily requires visible emission observations when burning oil.

The particulate matter and opacity standards of section 40 CFR 60-Dc.43c apply at all times, except during periods of startup, shutdown, and malfunction.

Parameter Monitored: OPACITY Upper Permit Limit: 20 percent Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9) Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 109: Enforceability of particulate matter and opacity standards.

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 109.1:

This Condition applies to Emission Unit: Y-00002 Process: 011

Item 109.2:

The particulate matter and opacity standards of section 40 CFR 60-Dc.43c apply at all



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times, except during periods of startup, shutdown, and malfunction.

Condition 110: Alternative compliance methods for sulfur dioxide.

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 110.1:

This Condition applies to Emission Unit: Y-00002

Process: 011

Item 110.2:

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

Condition 111: Compliance methods for particulate matter.

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 60.45c, NSPS Subpart Dc

Item 111.1:

This Condition applies to Emission Unit: Y-00002

Process: 011

Item 111.2:

The facility shall conduct compliance testing for particulate matter by the methods listed in this section 40 CFR 60-Dc.45c.

Condition 112: Recordkeeping and reporting.

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 112.1:

This Condition applies to Emission Unit: Y-00002 Process: 011

Item 112.2:

The facility shall maintain reports and records in accordance with the provisions of this section 40 CFR 60-Dc.48c.



Permit ID: 9-1464-00153/00004 Facility DEC ID: 9146400153

Condition 113: **Compliance Certification**

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 113.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002

Process: 011

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 113.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

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

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 114: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 114.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002 Emission Point: 00002

Regulated Contaminant(s):

Air Pollution Control Permit Conditions Page 98 **FINAL**



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

Item 114.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

Indeck Yerkes Auxiliary Boiler, EU 00002 is subject to Subpart 227-2 NOx RACT requirements for mid-sized boilers. The boiler is capable of firing both distillate oil (#2 fuel oil) and natural gas. Therefore Indeck Yerkes must comply with the mixed fuel limit of 0.08 lbs/MMBtu for Oxides of Nitrogen. The boiler was tested September 1 of 2015 while firing natural gas and verified compliance with their highest run reaching an emission rate of 0.07 lbs/MMBtu for NOx. The average emission rate during the test was 0.054 lbs/MMBtu.

Should Yerkes choose to run the boiler on distillate oil, an additional test shall be conducted to show that the boiler can meet the 0.08 lbs/MMbtu limit while firing on oil. The test must be conducted within 30 days of startup on oil. Any installment of an air pollution control equipment will require a second testing within 60 days of installation.

A stack test shall be conducted once per term of permit but no less than once every 5 years (20 calendar quarters) whether it is fired on gas or oil. In addition, semi-annual reports shall be submitted to the department. The reports shall verify compliance by referencing that the most recent stack test is meeting the limit of 0.08 lbs/MMBtu of NOx.

Upper Permit Limit: 0.08 pounds per million Btus Reference Test Method: 40 CFR part 60 Appendix A Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT Averaging Method: 1-HOUR AVERAGE Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

Condition 115: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable Federal Requirement: 40CFR 52.21(j), Subpart A

Item 115.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002 Emission Point: 00002



Process: 011

Item 115.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Distillate fuel oil use in the auxiliary boiler shall be limited to 1440 hours per year calculated on a daily rolling basis. Records hours of operation must be kept and made available for inspection upon request.

The total rolling hours of operation must be submitted with each quarterly report.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 1440 hours per year

Monitoring Frequency: HOURLY

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

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 116: Compliance Certification

Effective between the dates of 11/08/2016 and 11/07/2021

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

Item 116.1:

The Compliance Certification activity will be performed for:

Emission Unit: Y-00002 Emission Point: 00002

Process: 011

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 116.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

On and after the date on which the initial performance test is completed or required to be completed under 40CFR60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The facility BACT limit of 0.30% sulfur by weight in fuel oil established under



40CFR52.21(j) supersedes the limit of 0.5% sulfur by weight specified in 40CFR60.42c(d).

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

In addition, this permit also contains a more stringent sulfur requirements from Subpart 225-1: Fuel Composition and Use – Sulfur Limitations. 6NYCRR Subpart 225 restricts the facility from burning #2 fuel oil (distillate) that has a higher sulfur content than 0.0015 percent sulfur by weight (15 ppm). Both limits apply.

Parameter Monitored: SULFUR DIOXIDE Upper Permit Limit: 0.5 percent by weight

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED PER OCCURRENCE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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



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

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

Item A: Emergency Defense - 6 NYCRR 201-1.5

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

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

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

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and



standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

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

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.

Condition 117: Contaminant List

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable State Requirement: ECL 19-0301

Item 117.1:

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

CAS No: 000124-38-9 Name: CARBON DIOXIDE

CAS No: 000630-08-0

Name: CARBON MONOXIDE

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

CAS No: 011104-93-1

Name: NITROGEN OXIDE- (USE 0NY210-00-0)

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: 9-1464-00153/00004 Facility DEC ID: 9146400153

Condition 118: Malfunctions and start-up/shutdown activities

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable State Requirement: 6 NYCRR 201-1.4

Item 118.1:

- (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 119: Compliance Demonstration

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable State Requirement: 6 NYCRR 242-1.5

Item 119.1:

The Compliance Demonstration activity will be performed for the Facility.



Item 119.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owners and operators and, to the extent applicable, the CO2 authorized account representative of each CO2 budget source and each CO2 budget unit at the source shall comply with the monitoring requirements of Subpart 242-8. The emissions measurements recorded and reported in accordance with Subpart 242-8 of this Part shall be used to determine compliance by the unit with the following CO2 requirements:

- (1) The owners and operators of each CO2 budget source and each CO2 budget unit at the source shall hold CO2 allowances available for compliance deductions under Section 242-6.5, as of the CO2 allowance transfer deadline, in the source's compliance account in an amount not less than the total CO2 emissions for the control period from all CO2 budget units at the source, as determined in accordance with Subparts 242-6 and 242-8.
- (2) Each ton of CO2 emitted in excess of the CO2 budget emissions limitation shall constitute a separate violation of this Part and applicable state law.
- (3) A CO2 budget unit shall be subject to the requirements specified in item 1 starting on the later, of January 1, 2009 or the date on which the unit commences operation.
- (4) CO2 allowances shall be held in, deducted from, or transferred among CO2 Allowance Tracking System accounts in accordance with Subparts 242-5, 242-6, and 242-7, and Section 242-10.7.
- (5) A CO2 allowance shall not be deducted, in order to comply with the requirements specified in item 1, for a control period that ends prior to the allocation year for which the CO2 allowance was allocated. A CO2 offset allowance shall not be deducted, in order to comply with the requirements under item 1, beyond the applicable percent limitations set out in 6NYCRR Part 242-6.5(a)(3).
- (6) A CO2 allowance under the CO2 Budget Trading Program is a limited authorization by the Department or a participating state to emit one ton of CO2 in accordance with the CO2 Budget Trading Program. No provision of the CO2 Budget Trading Program, the CO2 budget permit



application, or the CO2 budget permit or any provision of law shall be construed to limit the authority of the Department or a participating state to terminate or limit such authorization.

(7) A CO2 allowance under the CO2 Budget Trading Program does not constitute a property right.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 120: Compliance Demonstration Effective between the dates of 11/08/2016 and 11/07/2021

Applicable State Requirement: 6 NYCRR Subpart 242-4

Item 120.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000124-38-9 CARBON DIOXIDE

Item 120.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Annual Compliance Certification Report:

- (a) For each control period in which a CO2 budget source is subject to the CO2 requirements of subdivision 242-1.5(c) of this Part, CO2 authorized account representative of the source shall submit to the department by March 1st following the relevant control period, a compliance certification report. The control period is a three-calendar-year time period.
- (b) The compliance certification report shall include the following elements:
- (1) identification of the source and each CO2 budget unit at the source;
- (2) as an option, the serial numbers of the CO2 allowances that are to be deducted from the source's compliance account under section 242-6.5 of this Part for the control period, including the serial numbers of any CO2 offset allowances that are to be deducted subject to the



limitations of section 242-6.5(a)(3) of this Part; and

- (3) the compliance certification under subdivision (c) of this section (below).
- (c) In the compliance certification report the CO2 authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the CO2 budget units at the source in compliance with the CO2 Budget Trading Program, whether the source and each CO2 budget unit at the source for which the compliance certification is submitted was operated during the calendar years covered by the report in compliance with the requirements of the CO2 Budget Trading Program, including:
- (1) whether the source was operated in compliance with the CO2 requirements of section 242-1.5(c) of this Part;
- (2) whether the monitoring plan applicable to each unit at the source has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute CO2 emissions to the unit, in accordance with Subpart 242-8 of this Part;
- (3) whether all the CO2 emissions from the units at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with Subpart 242-8 of this Part. If conditional data were reported, the owner or operator shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;
- (4) whether the facts that form the basis for certification under Subpart 242-8 of each monitor at each unit at the source, or for using an excepted monitoring method or alternative monitoring method approved under Subpart 242-8 of this Part, if any, have changed; and
- (5) if a change is required to be reported under paragraph (c)(4) above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor recertification.



Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 121: Compliance Demonstration

Effective between the dates of 11/08/2016 and 11/07/2021

Applicable State Requirement: 6 NYCRR Subpart 242-8

Item 121.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000124-38-9 CARBON DIOXIDE

Item 121.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Recordkeeping and Reporting (6NYCRR Part 242-8.5)

- (a) General provisions. The CO2 authorized account representative shall comply with all recordkeeping and reporting requirements in this section, the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the requirements of section 242-2.1(e) of this Part.
- (b) Monitoring plans. The owner or operator of a CO2 budget unit shall submit a monitoring plan in the manner prescribed in 40 CFR 75.62.
- (c) Certification applications. The CO2 authorized account representative shall submit an application to the department within 45 days after completing all CO2 monitoring system initial certification or recertification tests required under section 242-8.2 of this Subpart including the information required under 40 CFR 75.63 and 40 CFR 75.53(e) and (f).
- (d) Quarterly reports. The CO2 authorized account representative shall submit quarterly reports, as follows:
- (1) The CO2 authorized account representative shall report the CO2 mass emissions data and heat input data for the CO2 budget unit, in an electronic format prescribed by the administrator unless otherwise prescribed by the department for each calendar quarter.
- (2) The CO2 authorized account representative shall submit each quarterly report to the department or its



agent within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in subpart H of 40 CFR part 75 and 40 CFR 75.64. Quarterly reports shall be submitted for each CO2 budget unit (or group of units using a common stack), and shall include all of the data and information required in subpart G of 40 CFR part 75, except for opacity, NOx, and SO2 provisions.

- (3) The CO2 authorized account representative shall submit to the department or its agent a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:
- (i) the monitoring data submitted were recorded in accordance with the applicable requirements of this Subpart and 40 CFR part 75, including the quality assurance procedures and specifications;
- (ii) for a unit with add-on CO2 emissions controls and for all hours where data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emissions controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B of 40 CFR part 75 and the substitute values do not systematically underestimate CO2 emissions; and
- (iii) the CO2 concentration values substituted for missing data under Subpart D of 40 CFR part 75 do not systematically underestimate CO2 emissions.

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 1/30/2017.

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

**** Emission Unit Level ****

Condition 1-3: Compliance Demonstration Effective between the dates of 07/03/2018 and 11/07/2021

Applicable State Requirement: 6 NYCRR 231-11.2 (c)

Item 1-3.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: Y-00002

Item 1-3.2:



Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

For a modification with a project emission potential which is less than 50 percent of the applicable significant project threshold in Table 3, Table 4 or Table 6 of Subpart 231-13 of this Part, but equals or exceeds 50 percent of the applicable significant project threshold when emissions excluded in accordance with clause 231-4.1(b)(41)(i)(c) of this Part are added and is less than the applicable significant project threshold, or for a modification with a project emission potential which equals or exceeds 50 percent of the applicable significant project threshold in Table 3, Table 4 or Table 6 of Subpart 231-13 of this Part and is less than the applicable significant project threshold, the facility owner or operator must submit an application to modify the facility permit under the minor permit provisions of Subpart 201-6 of this Title or obtain a preconstruction permit under the provisions of Subpart 201-6 of this Title, and must:

- (1) maintain the following information for a minimum of five years:
- (i) a description of the modification.
- (ii) an identification of each new or modified emission source(s) including the associated processes and emission unit.
- (iii) the calculation of the project emission potential for each modified emission source(s) including supporting documentation.
- (iv) the date the modification commenced operation.
- (2) monitor the emissions of each regulated NSR contaminant from the emission source(s) that will increase as a result of the modification, and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the modification, or for a period of 10 years following resumption of regular operations after the change if the modification increases the design capacity of or potential to emit the regulated NSR contaminant at such emission source(s); and
- (3) submit a report to the department within 30 days after the end of each year during which records must be



generated in accordance with Paragraph 231-11.2(c)(2) of this Part. The report must contain:

- (i) the name, address, and telephone number of the major facility.
- (ii) the annual emissions as calculated pursuant to Paragraph (c)(2) of this Section.
- (iii) a comparison of actual annual emissions to the projected actual emissions and, if applicable, an explanation as to why the actual annual emissions exceeded the projected actual emissions.

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 1/30/2019.

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

