

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-1464-00153/00004 Renewal Number: 1



01/11/2007

Facility Identification Data

Name: INDECK-YERKES ENERGY SERVICES
Address: 1 SHERIDAN DRIVE
TONAWANDA, NY 14150

Owner/Firm

Name: INDECK-ENERGY SERVICES INC
Address: 600 N. BUFFALO GROVE RD. SUITE 300
BUFFALO GROVE, IL 60089-1976, USA
Owner Classification: Corporation/Partnership

Permit Contacts

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1 SHERIDAN DR
TONAWANDA, NY 14150
Phone:7168749088

Permit Description

Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project

This project was an application for the renewal of the title V facility permit. The renewal included the incorporation of monitoring requirements for 40CFR72: Acid Rain Program, Part 204: NOx Budget

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Trading Program, Part 237: Acid Deposition Reduction NOx Budget Trading Program, and Part 238: Acid Deposition Reduction SO2 Budget Trading Program, all of which became applicable after the original title V permit was issued. The original title V permit did not limit NOx or CO emissions during the start-up or shutdown of the stationary gas turbine, therefore monitoring conditions were added to the permit under 40CFR52.21 to limit mass emissions of NOx and CO during periods of start-up and shutdown. In addition, Indeck-Yerkes was granted permission to burn natural gas and No. 2 fuel oil simultaneously in the stationary gas turbine, so monitoring conditions were added to the title V permit to limit NOx and CO emissions during the co-firing of fuel. During the renewal process, the emission limits for PM-10 were adjusted to account for total PM-10 (filterable plus condensable) based on the results of stack tests conducted on the stationary gas turbine during the firing of natural gas and No. 2 fuel oil. The conditions for 40CFR60 Subpart GG and 40CFR60 Subpart Dc were also modified to reflect changes made to those regulations since the initial title V permit was issued. The particulate limit and stack testing requirements specified under 6NYCRR227.2(b)(1) for Process 011 contained in Emission Unit Y-00002 were also added to the permit. An applicability determination was conducted for 40CFR64 - Compliance Assurance Monitoring and showed that the gas turbine and auxiliary boiler are not subject to those requirements.

Attainment Status

INDECK-YERKES ENERGY SERVICES is located in the town of TONAWANDA in the county of ERIE.

The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	MARGINAL NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor

Facility Description



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The Indeck-Yerkes Energy Center (Indeck-Yerkes) is a combined cycle cogeneration facility that generates electrical power for sale and supplies steam to a neighboring production plant. Indeck-Yerkes consists of a GE Frame 6 gas turbine generator with a design heat input of 476 MMBTU/hr and 42 MW design power output at 48 degrees Fahrenheit. A natural gas-fired 30 MMBTU/hr duct burner, located downstream of the turbine, supplements the waste heat from the turbine for a heat recovery steam generator (HRSG). Steam from the HRSG is directed to a GE steam turbine to produce up to 19.3 MW of additional electricity. The HRSG also supplies up to 75,000 lb/hr of steam to the adjacent Dupont Yerkes Production Plant when the stationary gas turbine is operating. A dual fueled auxiliary boiler with a maximum heat input capacity of 99 mmbTU/hr is utilized to supply steam when the gas turbine is not operational.

Permit Structure and Description of Operations

The Title V permit for INDECK-YERKES ENERGY SERVICES is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

burn fuel to generate heat, steam or power

- incinerator - devices which burn waste material for disposal
- control - emission control devices
- process - any device or contrivance which may emit air contaminants that is not included in the above categories.

INDECK-YERKES ENERGY SERVICES is defined by the following emission unit(s):

Emission unit Y00001 - This emission unit consists of one GE Frame 6 combustion turbine (turbine), Model PG6541(B) 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



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power generation. The combustion turbine can fire natural gas, No. 2 fuel oil or a mixture of these fuels. Nitrous oxide (NO_x) 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 NO_x and CO are continuously monitored and recorded.

Emission unit Y00001 is associated with the following emission points (EP):
00001

It is further defined by the following process(es):

Process: 005 is located at Building 1 - This process consists of a GE Frame 6 gas turbine firing on a mixture of No. 2 fuel oil and natural gas without the duct burner firing.

Process: 006 is located at Building 1 - This process consists of a GE Frame 6 gas turbine firing on natural gas without the duct burner firing.

Process: 007 is located at Building 1 - This process consists of a GE Frame 6 gas turbine firing on burner firing.

Process: 009 is located at Building 1 - This process consists of a GE Frame 6 gas turbine and duct burner firing on natural gas.

Emission unit Y00002 - 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 flue gas recirculation to control NO_x emissions.

Emission unit Y00002 is associated with the following emission points (EP):
00002

It is further defined by the following process(es):

Process: 010 is located at Building 1 - This process consists of the auxiliary boiler burning natural gas.

Process: 011 is located at Building 1 - This process consists of the auxiliary boiler burning Number 2 distillate oil.

Title V/Major Source Status

INDECK-YERKES ENERGY SERVICES is subject to Title V requirements. This determination is based on the following information:

The Indeck-Yerkes Energy Center (Indeck-Yerkes) has a facility-wide potential to emit (PTE) both NO_x and SO₂ in excess of the major source thresholds of 100 tons per year (tpy) listed in 6NYCRR Subpart 201-6, Title V Facility Permits and 6NYCRR Subpart 227-2, Reasonably Available Control Technology (RACT) for Oxides of Nitrogen (NO_x). Indeck-Yerkes chose not to cap their actual emissions of NO_x and SO₂ to less than the applicability thresholds, therefore this facility is considered major for these contaminants and subject to the provisions of title V. Indeck-Yerkes is also considered a major source under 40CFR52.21, Prevention of Significant Deterioration (PSD) and is subject to the Best Available Control Technology (BACT) requirements under 40CFR52.21(j) for SO₂, NO_x, CO, PM and PM-10 emissions. In addition, Indeck-Yerkes is subject to the provisions of title V since it operates an affected source subject to the Acid Rain regulations under 40CFR72.

Program Applicability

The following chart summarizes the applicability of INDECK-YERKES ENERGY SERVICES with regards to the principal air pollution regulatory programs:

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Regulatory Program	Applicability
PSD	YES
NO	
NESHAP (40 CFR Part 61)	NO
NO	
NSPS	YES
YES	
TITLE V	YES
NO	
RACT	YES
YES	

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's)

MACT Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.



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NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's(hydrofluorocarbons)or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is in compliance with all requirements

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code	Description
4911	ELECTRIC SERVICES
4931	ELEC & OTHER SERVICES COMBINED

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SCC Codes

SCC or Source Classification Code is a code developed and used by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code	Description
1-02-005-02	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL
1-02-006-02	10-100MMBTU/HR ** EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS
2-01-001-01	10-100 MMBtu/Hr INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) Turbine
2-01-002-01	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - NATURAL GAS Turbine
2-02-002-03	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION ENGINE - NATURAL GAS Turbine: Cogeneration

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

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Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
000630-08-0	CARBON MONOXIDE	110784	
0NY100-00-0	HAP		>= 2.5 tpy but < 10 tpy
007439-92-1	LEAD (HAP)		> 0 but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN	839676	
0NY075-00-0	PARTICULATES	40998	
0NY075-00-5	PM-10	112128	
007446-09-5	SULFUR DIOXIDE		>= 100 tpy but < 250 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6NYCRR Part 201-1.5

An emergency constitutes an affirmative defense to an action brought 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 and/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;
- (3) During the period of the emergency the facility owner and/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 and/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 and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

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

Item B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 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

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information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)

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

Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(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.

I Conditions - 6 NYCRR Part

201-6.5(a)(2)

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

Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6NYCRR Part 201-6.5(a)(5)

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

Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)

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

Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)

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

Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)

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

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)

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

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.
- iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item L:

Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this

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permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

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

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

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

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

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

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Short Description	Condition
FACILITY	ECL 19-0301	Powers and Duties of the	129

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Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-301.

This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6NYCRR Part 200-.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6NYCRR Part 200-.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6NYCRR Part 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-3.2(a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart.



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All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, 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.

6NYCRR Part 201-3.3(a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to 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.

6NYCRR Part 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6NYCRR 201-6.5(a)(4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

6NYCRR 201-6.5(a)(7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6NYCRR 201-6.5(a)(8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

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6NYCRR Part 201-6.5(c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6NYCRR Part 201-6.5(c)(2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6NYCRR Part 201-6.5(c)(3)(ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 201-6.5(d)(5)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6NYCRR Part 201-6.5(e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6NYCRR 201-6.5(f)(6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

6NYCRR Part 201-6.5(g)

Permit Exclusion Provisions - specifies those actions, such as administrative orders, suits, claims for natural resource damages, etc that are not affected by the

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federally enforceable portion of the permit, unless they are specifically addressed by it.

6NYCRR Part 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6NYCRR Part 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

6NYCRR Part 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6NYCRR Part 211-.2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3

This condition requires that the opacity (i.e., the degree to which emissions other than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.

This Part lists the regulated substances and their applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery

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equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements

In addition to Title V, INDECK-YERKES ENERGY SERVICES has been determined to be subject to the following regulations:

40CFR 52-A.21 (j)

BACT determinations are made on a case-by-case basis and can be no less stringent than any requirement that exists in the current State Implementation Plan (SIP) or 40 CFR 60 and 61. Emission and operational limitations required from a BACT determination will have to be entered into the special

nit reviewer.

40CFR 60-A

This regulation contains the General Provisions of 40 CFR 60. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements

40CFR 60-A.11

This regulation specifies the type of opacity monitoring requirements in relation to compliance with the standards and maintenance requirements.

40CFR 60-A.12

This regulation prohibits an owner or operator from concealing emissions in violation of applicable standards by any means.

40CFR 60-A.13

This regulation specifies how monitoring shall be performed and which methods and appendices are used to determine if the monitoring is adequate and in compliance with the regulated standards.

40CFR 60-A.4

This condition lists the USEPA Region 2 address for the submittal of all communications to the "Administrator". In addition, all such communications must be copied to NYSDEC Bureau of Quality Assurance (BQA).

40CFR 60-A.7 (b)

This regulation requires the owner or operator to maintain records of the occurrence and duration of any startup, shutdown, or malfunction of the source or control equipment or continuous monitoring system.

40CFR 60-A.7 (c)

This requirement details the information to be submitted in excess emissions and monitoring systems performance reports which must be submitted at least semi-annually for sources with compliance monitoring systems.

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40CFR 60-A.7 (d)

This condition specifies the required information and format for a summary report form and details when either a summary form and/or excess emissions reports are required.

40CFR 60-A.7 (f)

This condition specifies requirements for maintenance of files of all measurements, including continuous monitoring system (CMS), monitoring device, and performance testing measurements; all CMS performance evaluations; all CMS or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices for at least two years.

40CFR 60-Dc.42c (d)

This regulation requires that on or after the date on which the initial performance test is completed or required to be completed under section 60.8 of 40 CFR 60 Subpart A, no owner or operator of an affected facility that combusts oil, shall combust oil with a sulfur content in excess of 0.5 percent by weight.

40CFR 60-Dc.42c (h)

This regulation requires that compliance with emission limits and/or fuel oil sulfur limitations 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

40CFR 60-Dc.42c (i)

This regulation requires that the sulfur dioxide emission limits, percentage reductions, and fuel oil sulfur limitations apply at all times, including periods of startup, shutdown, and malfunction.

40CFR 60-Dc.43c (c)

This regulation requires that on or after the date on which the initial performance test is completed or is required to be completed, an affected facility that combusts coal, wood, or oil and has a heat input of 30 million Btu per hour (8.7 MW) or greater, shall not cause any gases to be discharged to the atmosphere, that exhibit an opacity greater than 20% (based on a 6-minute average) or exceeds 27% for one 6-minute period per hour.

40CFR 60-Dc.43c (d)

This regulation requires that 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.

40CFR 60-Dc.44c (h)

This regulation requires facilities demonstrating compliance through vendor certification to follow the compliance procedures listed in the appropriate paragraphs of 40 CFR 60-Dc.48c.

40CFR 60-Dc.45c

This regulation requires the facility to conduct compliance testing for particulate matter by the methods listed in this section 40 CFR 60-Dc.45c.

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40CFR 60-Dc.46c (e)

This regulation allows facilities subject to paragraphs 40 CFR 60-Dc.42c(h)(1), (2), or (3) who show compliance through vendor certification, to be exempt from the monitoring requirements of section 40 CFR 60-Dc.46c

40CFR 60-Dc.48c

This regulation requires that the facility maintain reports and records in accordance with the provisions of this section 40 CFR 60-Dc.48c.

40CFR 60-Dc.48c (f) (1)

Fuel supplier certifications for distillate oil shall include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60-Dc.41c

40CFR 60-Dc.48c (g)

The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each day.

40CFR 60-GG.330

This section states the applicability and designation of the affected facility.

40CFR 60-GG.332 (a) (1)

This regulation provides the equation to be used to determine the allowable emissions of oxides of nitrogen (NO_x) from a gas turbine with a heat input greater than 100 million BTU per hour.

40CFR 60-GG.332 (f)

This regulation allows gas turbines using water or steam injection to control NO_x to be exempt from section 332.a when ice fog is deemed a traffic hazard.

40CFR 60-GG.333

This regulation sets the emission limit of sulfur dioxide from a gas turbine at 0.015 % by volume at 15% excess oxygen.

40CFR 60-GG.333 (b)

This regulation limits the amount of sulfur in the fuel burned in a gas turbine to 0.8% by weight

40CFR 60-GG.334 (b)

This regulation requires the owner/operator of the gas turbine to monitor (measure) the sulfur and in the turbine.

40CFR 60-GG.334 (h) (1)

This regulation requires the owner or operator of a gas turbine to monitor the sulfur content of the fuel burned in the turbine.

40CFR 60-GG.334 (h) (2)

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This regulation requires the owner or operator of a gas turbine to monitor the nitrogen content of the fuel burned in the gas turbine.

40CFR 60-GG.334 (h) (3)

This regulation allows the owner or operator of a gas turbine to not monitor the fuel for sulfur or nitrogen content if the fuel meets the 40 CFR 60.331(u) definition of natural gas.

40CFR 60-GG.334 (i) (1)

This regulation specifies the frequency of monitoring the sulfur and nitrogen content of the fuel burned in a gas turbine. The owner or operator must sample the fuel oil based on the requirements of 40 CFR Part 75, Appendix D.

40CFR 60-GG.334 (j)

This regulation sets forth the reporting requirements for affected units that continuously monitor parameters or emissions or those that periodically determine the sulfur and/or nitrogen content of the fuel burned in a gas turbine.

40CFR 72

In order to reduce acid rain the the U.S. and Canada, Title IV of the Clean Air Act Amendments of 1990 requires the establishment of a program to reduce emissions of SO₂ and NO_x (sulfur dioxide and oxides of nitrogen). Fossil fuel burning electric utility companies are a major source of these contaminants in the US. These sources were regulated in a phased approach. Phase I, which began in 1995, requires 110 of the higher-emitting utility plants in the eastern and Midwest states to meet intermediate SO₂ emission limitations. Phase II, which began in 2000, tightens the emission limitations and expands the coverage to most fossil fuel burning utilities. The utilities are given "allowances" which is a limited authorization to emit one ton of SO₂. The utilities are required to limit SO₂ emissions to the number of allowances they hold. Some can benefit however by reducing their emissions and selling their excess allowances. Part 72 contains the means of implementing this portion of Title IV of the Clean Air Act.

6NYCRR 200 .3

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

6NYCRR 201-3.2 (c) (6)

The following emergency power generating units are exempt from permitting requirements:

- (i) Facility specific emergency power generating units where each individual unit operates for no more than 500 hours per year.
- (ii) Centrally dispatched emergency power generating units where each individual unit operates for no more than 200 hours per year. Should a centrally dispatched emergency power generating unit be also operated as a facility specific emergency power generating unit, the annual 200 hour centrally dispatched operating time limit remains applicable, and the total combined hours for operating as either type of emergency power generating unit shall be for no more than 500 hours.

6NYCRR 201-6.5 (c) (3) (ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions

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regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 204-1.4

This condition describes the NOx budget unit at the facility that is subject to the requirements of the NOx Budget Program under 6NYCRR204.

6NYCRR 204-1.6

This condition requires the designated representative of the permittee to make submissions for the NOx Budget Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

6NYCRR 204-2.1

This condition states the submission requirements for the NOx Budget Trading Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

6NYCRR 204-4.1

This condition covers the compliance certification report requirements for the NOx Budget Program.

6NYCRR 204-7.1

This condition lists the requirements for transfer of allowances in the NOx Budget Program.

6NYCRR 204-8.1

This condition lists the general requirements for the NOx Budget trading program. They include, but are not limited to monitoring requirements, certification, record keeping and reporting.

6NYCRR 204-8.2

This condition covers the procedures for initially certifying and recertifying the monitoring systems of the unit meet the requirements of the NOx Budget Program

6NYCRR 204-8.3

This condition states the requirements for data substitution during times when the monitoring systems do not meet applicable quality assurance requirements.

6NYCRR 204-8.4

This condition lists the addresses where monitoring plans and their modifications, compliance certifications, recertifications, quarterly QA/QC reports and petitions for alternative monitoring shall be sent.

6NYCRR 204-8.5

This condition describes the recordkeeping and reporting requirements for the NOx Budget source.

6NYCRR 204-8.7

This condition is a requirement for monitoring and reporting if a particular monitoring scenario is

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utilitized.

6NYCRR 225-1.2 (d)

The sulfur-in-fuel limitations for residual and distillate oil and for solid fuel are listed in Tables 1,2 and 3 or 6 NYCRR Part 225-1.2(c), (d) and (e)

6NYCRR 225-1.7

This regulation requires the use of continuous emissions monitors to monitor the emissions of sulfur dioxide. This applies to facilities with a total heat input greater than 250 million BTU per hour, are equipped with approved sulfur dioxide control equipment and are subject to the sulfur dioxide equivalent emission rate pursuant to 6 NYCRR Part 225-1.5(a).

6NYCRR 227 .2 (b) (1)

This regulation is from the 1972 version of Part 227 and still remains as part of New York's SIP. The rule establishes a particulate limit of 0.10 lbs/mmBtu based on a 2 hour average emission for any oil fired stationary combustion installation.

6NYCRR 227-1.2 (a) (1)

This regulation establishes a particulate emission limit in terms of lbs per mmBtu of heat input for stationary combustion units of greater than 250 mmBtu/hr heat input capacity which fire coal, oil, or coal derived fuels.

6NYCRR 227-1.2 (b)

This regulation requires the total heating capacity connected to a stack to be used to determine the permissible particulate emission rate.

6NYCRR 227-1.3

This regulation requires a limitation and compliance monitoring for opacity from a stationary combustion installation.

6NYCRR 227-1.6 (a)

This regulation requires that any facility found in violation of the provisions of Part 227 must not operate the affected stationary combustion installation that is in violation unless it is equipped with approved emission control equipment, it is rehabilitated or upgraded in an approved manner; or the fuel is changed to an acceptable type

6NYCRR 227-1.6 (b)

This regulation states that the Department may seal the affected stationary combustion installation that does not comply with the provisions in subdivision 6 NYCRR 227-1.6(a) within the time provided.

6NYCRR 227-1.6 (c)

This regulation state that no person may operate any affected stationary combustion installation sealed by the commissioner in accordance with this Part 227.

6NYCRR 227-1.6 (d)

This regulation states that no person except Department personnel may remove, tamper with, or destroy

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any seal affixed to any affected stationary combustion installation.

6NYCRR 227-1.7 (a)

This regulation requires any stationary combustion installation described in section 6 NYCRR 227-1.2 of this Part, to provide pertinent emissions data upon request by the Department..

6NYCRR 227-1.7 (b)

This specifies the requirement for acceptable fuel sample test methods.

6NYCRR 227-2.4 (c) (2)

This regulation requires mid-size boilers (fuel combustion units with a maximum heat input capacity greater than 50 million Btu per hour and equal to or less than 100 million Btu per hour that produce steam or heats water or any other heat transfer medium) to meet the following emission limits (listed in pounds NO_x per million Btu) by May 31, 1985:

for Gas fuel -	0.10
for Distillate Oil -	0.12
for Residual Oil -	0.30

Compliance with these emission limits are determined with a 1-hour average in accordance with section 227-2.6(a)(4). If CEMs are used to determine compliance, the requirements of 227-2.6(b) apply, including the use of a 24-hour averaging period.

6NYCRR 227-2.4 (e) (2)

This condition describes the RACT requirements for a combined cycle combustion turbine.

6NYCRR 227-2.6 (b) (5)

This condition describes the CEMS requirements for sources subject to 40 CFR part 75 and/or Part 204 of this Title.

6NYCRR 237-1.4 (a)

This condition specifies that any emission unit or facility with a unit; that at any time on or after January 1, 1999, serves a generator with a nameplate capacity equal to or greater than 25 MWe, and sells any amount of electricity, is a NO_x budget unit and subject to the requirements of NYCRR 237

6NYCRR 237-1.6 (c)

This subdivision outlines the standard requirements of the Acid Deposition Reduction NO_x Budget Trading Program for oxides of nitrogen.

6NYCRR 237-1.6 (e)

This requires the owners and operators of the NO_x budget source and each NO_x budget unit at the source to keep pertinent documents at the site for a period of 5 years; and lists which documents are pertinent.

6NYCRR 237-1.6 (f)

This describes the liability issues regarding the requirements of the ADR NO_x Budget Trading Program .

6NYCRR 237-1.6 (g)

This item states that no provision of the ADR NO_x Budget Trading Program, a NO_x budget permit application, or a NO_x budget permit, will exempt or exclude the owners and operators from compliance

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with any other provisions of applicable State and federal law and regulations.

6NYCRR 237-2

This condition requires the permittee to select and authorize one person to manage, and represent the owners of any NOx budget unit; and specifies the responsibilities of this NOx authorized account representative

6NYCRR 237-4.1

This item specifies the requirements of the compliance certification report.

6NYCRR 237-7.1

This item specifies what information and actions are necessary in order to record the transfer of NOx allowances. t

6NYCRR 237-8

This item requires the owners and operators of a NOx budget unit to comply with the monitoring and reporting requirements of NYCRR 237-8 and Subpart H of 40 CFR part 75; and allows NOx budget units which are also NOx budget units under NYCRR Part 204 to be summarily referenced in order to demonstrate compliance with the requirements of this item.

6NYCRR 238-1.4

This citation identifies the facility as having one or more SO2 budget units as defined by Federal Law, NYCRR 238

6NYCRR 238-1.6 (c)

This Item requires the owners and operators of each SO2 budget source and each SO2 budget unit to hold SO2 allowances available for compliance deductions under NYCRR 238-6.5; and how such allowances will be managed.

6NYCRR 238-1.6 (e)

This item requires the owners and operators of the SO2 budget source to keep on site at the source pertinent documents for a period of 5 years from the date the document is created.

6NYCRR 238-1.6 (f)

This subdivision outlines the liability of an affected source.

6NYCRR 238-1.6 (g)

This subdivision outlines the liability of an affected source as subject to other requirements.

6NYCRR 238-2.1

This section outlines the authorization and responsibilities of the SO2 authorized account representative.

6NYCRR 238-4.1

This section lists all of the requirements for the submission of the compliance certification report.

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6NYCRR 238-7.1

This section outlines the requirements for the submission of SO2 allowance transfers.

6NYCRR 238-8

This condition requires the owner or operator of the facility to comply with the reporting and record keeping requirements of 40 CFR Part 75.

Non Applicability Analysis

List of non-applicable rules and regulations:

Location Facility/EU/EP/Process/ES	Short Description	Regulation
FACILITY	COMPLIANCE ASSURANCE MONITORING	40CFR 64
Reason: INDECK-YERKES ENERGY CENTER, INC. Compliance Assurance Monitoring (CAM) Applicability Determination		

Emission Unit Y-00001: Stationary Gas Turbine
 The stationary gas turbine uses steam injection as a control device to meet the NOx limits specified under PSD, NOx RACT and 40CFR60, Subpart GG and has potential pre-control emissions equal to or greater than the major source threshold for NOx (100 tpy). The gas turbine uses a Continuous Emissions Monitoring System to determine compliance with these NOx limits. In accordance with 40CFR64.2(b)(1)(vi), since the gas turbine is required to use a CEMS (a continuous compliance determination method as defined in 40CFR64.1) to comply with the NOx limits under PSD, NOx RACT and Subpart GG, it is exempt from CAM requirements.

Emission Unit Y-00002: Auxiliary Boiler
 The stationary gas turbine uses Flue Gas Recirculation (FGR) to meet NOx RACT limits for the firing of both natural gas and No. 2 fuel oil in a mid-sized boiler as specified under 6NYCRR227-2.4(c). Analysis of the results from a stack test conducted in February 1991, prior to the installation of FGR, shows potential pre-control emissions of NOx at 65 tpy for the auxiliary boiler firing natural gas (worst case scenario). Since the potential pre-control emissions of NOx do not meet or exceed the major source threshold of 100 tpy for NOx, CAM does not apply.

FGR also controls particulate emissions from the auxiliary boiler. In accordance with 6NYCRR227.2(b)(1), particulate emissions from the auxiliary boiler, while firing No. 2 oil, are limited to 0.10 lb/mmBTU. Stack test results (February 1991) show that the potential pre-control emissions of particulates while firing No. 2 oil in the auxiliary boiler are less than 1 tpy, based on the PSD limit of 1440 hrs/yr maximum allowable hours of operation on oil. Since the potential pre-control emissions of particulates do not meet or exceed the major source threshold of 100 tpy, CAM does not apply.

NOTE: Non-applicability determinations are cited as a permit condition under 6 NYCRR Part 201-6.5(g). This information is optional and provided only if the applicant is seeking to obtain formal confirmation, within an issued Title V permit, that specified activities are not subject to the listed federal applicable or state only requirement. The applicant is seeking to obtain verification that a requirement does not apply for the stated reason(s) and the Department has agreed to include the non-applicability determination in the issued Title V permit which in turn provides a shield against any potential

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enforcement action.

Compliance Certification

Summary of monitoring activities at INDECK-YERKES ENERGY SERVICES:

Location Facility/EU/EP/Process/ES	Type of Monitoring	Cond No.
FACILITY	work practice involving specific operations	37
FACILITY	work practice involving specific operations	38
Y-00001	continuous emission monitoring (cem)	67
Y-00001	continuous emission monitoring (cem)	68
Y-00001	continuous emission monitoring (cem)	69
Y-00001	continuous emission monitoring (cem)	70
Y-00001	continuous emission monitoring (cem)	71
Y-00001	intermittent emission testing	72
Y-00001	continuous emission monitoring (cem)	73
Y-00001	intermittent emission testing	74
Y-00001	monitoring of process or control device parameters as surrogate	75
Y-00001	monitoring of process or control device parameters as surrogate	76
Y-00001	intermittent emission testing	77
Y-00001	intermittent emission testing	78
Y-00001	record keeping/maintenance procedures	79
Y-00001	record keeping/maintenance procedures	80
Y-00001	continuous emission monitoring (cem)	81
Y-00001	intermittent emission testing	82
Y-00001	continuous emission monitoring (cem)	83
Y-00001	record keeping/maintenance procedures	84
Y-00001	work practice involving specific operations	85
Y-00001	record keeping/maintenance procedures	86
Y-00001	continuous emission monitoring (cem)	87
Y-00001	continuous emission monitoring (cem)	88
Y-00001	continuous emission monitoring (cem)	89
Y-00001/00001/005	continuous emission monitoring (cem)	104
Y-00001/00001/005	continuous emission monitoring (cem)	105
Y-00001/00001/007	work practice involving specific operations	106
Y-00001/00001/009/Y00DB	intermittent emission testing	107
Y-00002	intermittent emission testing	109
Y-00002	intermittent emission testing	110
Y-00002	intermittent emission testing	111
Y-00002	intermittent emission testing	112
Y-00002	record keeping/maintenance procedures	113
Y-00002	intermittent emission testing	114
Y-00002/00002/011	work practice involving specific operations	127
FACILITY	record keeping/maintenance procedures	39
FACILITY	record keeping/maintenance procedures	42
Y-00002/00002/011	record keeping/maintenance procedures	128
Y-00002/-/011	monitoring of process or control device parameters as surrogate	118
Y-00002/-/011	record keeping/maintenance procedures	124
FACILITY	record keeping/maintenance procedures	48
Y-00001	record keeping/maintenance procedures	90
Y-00001	continuous emission monitoring (cem)	91
Y-00001	monitoring of process or control device	94



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	parameters as surrogate	
Y-00001	continuous emission monitoring (cem)	95
Y-00001	work practice involving specific operations	96
Y-00001	record keeping/maintenance procedures	97
Y-00001	work practice involving specific operations	98
Y-00001	work practice involving specific operations	99
Y-00001	record keeping/maintenance procedures	100
FACILITY	work practice involving specific operations	24
FACILITY	record keeping/maintenance procedures	5
FACILITY	record keeping/maintenance procedures	6
FACILITY	record keeping/maintenance procedures	7
Y-00001	record keeping/maintenance procedures	51
Y-00001	record keeping/maintenance procedures	52
Y-00001	record keeping/maintenance procedures	54
Y-00001	record keeping/maintenance procedures	60
Y-00001	record keeping/maintenance procedures	61
Y-00001	record keeping/maintenance procedures	62
FACILITY	work practice involving specific operations	27
Y-00002/-/011	intermittent emission testing	115
FACILITY	intermittent emission testing	29
FACILITY	monitoring of process or control device parameters as surrogate	30
Y-00002/00002/010	intermittent emission testing	125
Y-00002/00002/011	intermittent emission testing	126
Y-00001	record keeping/maintenance procedures	63
Y-00001	record keeping/maintenance procedures	133
Y-00001	record keeping/maintenance procedures	138
Y-00001	record keeping/maintenance procedures	140
Y-00001	record keeping/maintenance procedures	142
Y-00001	record keeping/maintenance procedures	147

Basis for Monitoring

This title V permit specifies special operating/monitoring conditions, recordkeeping and reporting required to verify compliance with the applicable requirements. The basis for monitoring for these requirements is as follows:

40CFR52.21(j) - Prevention of significant deterioration of air quality (PSD):

This facility is subject to the Best Available Control Technology (BACT) requirements specified under 40CFR52.21(j) for SO2, NOx, PM) and PM-10 (particulates with a diameter equal to or less than 10 micro-meters) emissions. BACT is an emissions limitation which is based on the maximum degree of control that can be achieved through the installation of control equipment or modification of the production process and is determined on a case-by-case basis, considering several factors including economic impact. The limits and control requirements for NOx, SO2, PM, and PM-10 emissions from the gas turbine, duct burner, and auxiliary boiler were established through a BACT analysis during the original PSD permitting process. To control SO2 emissions via BACT, Indeck-Yerkes is required to use only low sulfur fuel oil (0.3 weight %) at all combustion sources at the facility. The use of natural gas as the primary fuel (75%) and No. 2 fuel oil as back-up fuel (25%) with no add-on control were considered to be BACT for PM and PM-10 emissions. SO2, PM and PM-10 emissions are also controlled by a limit on hours of operation while firing No. 2 fuel oil in the gas turbine and auxiliary boiler. Monitoring of the sulfur content of the No. 2 fuel oil per delivery, the quantity of fuel oil used and hours that the turbine and auxiliary boiler are fired with fuel oil is required to verify compliance with the



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BACT limits specified for SO₂, PM and PM-10. To comply with the NO_x limits set for PSD, steam injection in the stationary gas turbine and a low NO_x duct burner are used to control NO_x emissions and are considered BACT. Since CO emissions increase with decreasing NO_x levels due to the control of NO_x emissions from the combustion process, the PSD analysis resulted in a limit being placed on CO emissions to avoid a significant net emissions increase of that regulated pollutant. To monitor NO_x and CO levels in the exhaust gas from the gas turbine, Indeck uses a Continuous Emissions Monitoring System (CEMS). Outputs from the CEMS are recorded and stored using a Data Acquisition and Reporting System (DARS). Quarterly emission reports, annual compliance certification reports and semi-annual deviation reports are required. Records must be maintained on-site for five years and be available for review by the Department or USEPA upon request.

6NYCRR227-2 (NO_x RACT):

Nitrous oxide (NO_x) emissions, which result mostly from combustion sources, such as boilers, furnaces, turbines, cars/trucks, etc. are responsible for ground-level ozone and acid rain, both of which destroy human health and the environment. This regulation requires that combustion sources which have a potential to emit 100 tons of NO_x per year or more control NO_x emissions through Reasonably Available Control Technology (RACT). The requirements for NO_x RACT, as they apply to the gas turbine/duct burner are equivalent to the requirements for PSD. Compliance is verified via a CEMS. Flue gas recirculation (FGR) was required to comply with the NO_x RACT limits for No.2 fuel oil and natural gas in the auxiliary boiler. Compliance with the NO_x RACT limits for the auxiliary boiler was verified through a stack test for both No. 2 fuel oil and natural gas. Records must be maintained on-site for five years and be available for review by the Department or USEPA upon request. Quarterly emission reports submitted in accordance with 40CFR75 for the gas turbine/duct burner, annual compliance certification reports and semi-annual deviation reports are required.

40CFR60 Subpart GG:

Facilities that operate stationary gas turbines are subject to the requirements of 40CFR60, Subpart GG, which includes a limit on sulfur content in fuel of 0.8 % by weight and a 75 ppm limit on NO_x emissions. Indeck-Yerkes utilizes steam injection to control NO_x emissions from the stationary gas turbine. A CEMS is used to monitor NO_x emissions to verify compliance with the 75 ppm limit, however compliance with the PSD limit of 42 ppm NO_x ensures compliance with this limit. In addition, compliance with the more stringent sulfur limit of 0.3% by weight for fuel oil specified under 40CFR52.21 shall verify compliance with the 0.8% limit under Subpart GG. Indeck-Yerkes fuels the stationary gas turbine with natural gas as defined under 40CFR60.334 (h) and is in compliance with the sulfur limit. All records must be maintained on-site for review by inspectors from the USEPA and/or NYSDEC. Quarterly (calendar) and/or semi-annual reporting is required.

40CFR60 Subpart Dc:

The gas-fired duct burner and the auxiliary boiler are subject to the requirements of 40CFR60 Subpart Dc- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Subpart Dc includes an opacity limit of 20% or less on the auxiliary boiler while firing No. 2 fuel oil, a limit of 0.5% sulfur by weight in fuel oil for the auxiliary boiler and fuel usage monitoring for both the duct burner and the auxiliary boiler. Compliance with the opacity limit is verified via opacity observations and other monitoring requirements specified under 6NYCRR227-1.3(a) conducted during the firing of No. 2 fuel oil in the auxiliary boiler and the % sulfur in fuel oil is verified via PSD requirements. All records must be maintained on-site for review by inspectors from the USEPA and/or

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NYSDEC. Reporting is required semi-annually.

6NYCRR227-1.3(a) and 6NYCRR211.3:

Opacity is regulated under 6NYCRR227-1.3 and 6NYCRR211.3 to control the emission of particulates, which when respired can harm human health and can cause reduced visibility. An opacity determination is a surrogate method of determining compliance with the in-stack concentration limit. The gas turbine (EP 00001) and the auxiliary boiler (EP 00002) at Indeck-Yerkes are subject to 6NYCRR227-1.3(a), which limits the average opacity of the emissions during any six consecutive minutes to less than 20%. A daily check of visible emissions during the firing of No. 2 fuel oil is required to verify compliance with this rule. The observation of emissions greater than zero percent opacity will trigger an investigation to determine the cause, followed by corrective action. If visible emissions persist, a Method 9 opacity evaluation is required to determine whether the opacity limit has been exceeded. The facility is considered in violation of 6NYCRR227-1.3 if the opacity is determined to be greater than 20%. Observation records and Method 9 analyses must be maintained on-site for five years and be available for NYSDEC to review to determine compliance. In addition to semi-annually, reporting is required any time a Method 9 analysis is conducted. Since the limits are equivalent, compliance with the opacity limit specified under 40CFR60 Subpart Dc and 6NYCRR211.3, may be verified via the monitoring requirements specified under 6NYCRR227-1.3(a).

6NYCRR225-1.2 (d) :

The sulfur content in fuel oil is limited by this regulation to lower the sulfur dioxide emissions resulting from some combustion sources. When sulfur dioxide is exhausted to the air it combines with water to form sulfuric acid. When it rains, snows, etc. this acid enters lakes and rivers, contaminating drinking water and fish, making the bodies of water uninhabitable for aquatic organisms. It also is harmful to human health, trees and vegetation, buildings, etc. The sulfur content in fuel oil is limited by 6NYCRR225-1 to lower the sulfur dioxide emissions resulting from stationary combustion installations. Distillate (No. 2) oil used at Indeck-Yerkes is subject to the sulfur in oil limit of 1.5 % by weight as specified under 6NYCRR225-1.2 (d). Since the limit on sulfur in fuel specified under PSD is more stringent than this limit, compliance can be verified via the monitoring and reporting requirements under 40CFR52.21(j). Records are required to be maintained on-site for five years. Reporting is required semiannually

6NYCRR227.2(b)(1):

This regulates particulate emissions from stationary combustion sources. Inhalable particulates are detrimental to human health, causing asthma and other lung diseases, heart disease and sometimes death. In cities and towns, particulates are responsible for reduced visibility and damage to painted surfaces and buildings. The auxiliary boiler (99 MMBTU/hr) in EU Y-0002 is subject to the requirements of 6NYCRR227.2(b)(1), while firing No. 2 fuel oil. Particulate emissions from the combustion of No. 2 oil in this boiler (Process 011), exhausted through EP 00002, are limited to 0.10 lb/MMBTU. Approval of a stack test protocol and the performance of a stack test is required prior to permit renewal to verify compliance with the specified limit. To minimize particulate emissions, Indeck-Yerkes is also required to operate and maintain the auxiliary boiler as specified by the manufacturer. Boiler tune-ups are required annually. Records of stack tests/ protocols and maintenance/repairs must be kept on-site so that NYSDEC and/or USEPA inspectors may review them to verify compliance with these requirements. Reporting is required semi-annually.

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6NYCRR204 and 6NYCRR237:

These regulations were enacted to achieve compliance with the NAAQS for ozone by reducing NOx emissions from utilities and large combustion sources which contribute to interstate transport of ground level ozone. These regulations were also designed to reduce acid deposition in New York State from acid rain, which is formed when NOx emissions react with other substances in the atmosphere to create weak acids which fall to the earth in the form of rain, snow, fog, or dry particles. This acid deposition severely damages many of the State's marine and forest ecosystems and causes deterioration of many manmade structures. During the ozone season (May 1- September 30), Indeck-Yerkes is subject to the requirements of 6NYCRR204, NOx Budget Trading Program and during the non-ozone season (October 1 - April 30) the Acid Deposition Reduction NOx Budget Trading Program (6NYCRR237) applies. Both regulations allot Indeck-Yerkes a certain quantity of NOx emission allowances for their respective seasons. At the end of each period, Indeck-Yerkes must obtain additional allowances if needed to balance their emissions and the Authorized Account Representative must submit a certification of compliance for the budget source. To ensure that NOx emissions do not exceed allowances, Indeck-Yerkes is required to monitor NOx emissions via a continuous emissions monitoring systems (CEMS) in accordance with 40CFR75. Indeck-Yerkes must maintain records onsite and submit quarterly emission reports and an annual compliance certification.

40CFR72

Indeck-Yerkes must monitor SO2 emissions annually from EU Y00001 (the "affected unit") to determine compliance with their annual SO2 allocation for the Acid Rain Program. In lieu of a continuous emissions monitoring system (CEMS) for SO2, Indeck-Yerkes may use an alternate method in accordance with Appendix D to Part 75—Optional SO2 Emissions Data Protocol for Gas-Fired and Oil-Fired Units. In this case, Indeck-Yerkes will monitor fuel flowrate and sulfur content to estimate SO2 emissions. Indeck-Yerkes must submit quarterly emission reports and an annual compliance certification.

6NYCRR 238:

This is a state regulation which is similar to 40CFR72 in that the State of New York allocates SO2 allowances to SO2 budget units to limit SO2 emissions to reduce acid rain. However, SO2 allowances are less than those allocated under 40CFR72. SO2 emissions monitoring is conducted in accordance with 40CFR75 Appendix D. The control period for 6NYCRR238 is January 1-December 31. Indeck-Yerkes must submit quarterly emission reports and an annual compliance certification.

6NYCRR201-3.2 (c)(6):

Emergency generators are considered exempt from permitting only if they are operated less than 500 hours per year, including testing, and are used for emergency purposes only. The owner or operator must record all times that the emergency generator is operated based on hour meter readings or other verifiable method. Records must be maintained on-site so that inspectors from the USEPA and/or the NYSDEC can review them to verify compliance with the annual limit.

40CFR64 - Non-Applicability Determination:

An applicability determination, conducted for 40CFR64 - Compliance Assurance Monitoring (CAM), showed that the gas turbine and auxiliary boiler are not subject to the requirements of CAM as follows:

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Emission Unit Y-00001: Stationary Gas Turbine

The stationary gas turbine uses steam injection as a control device to meet the NO_x limits specified under PSD, NO_x RACT and 40CFR60, Subpart GG and has potential pre-control emissions equal to or greater than the major source threshold for NO_x (100 tpy). The gas turbine uses a Continuous Emissions Monitoring System to determine compliance with these NO_x limits. In accordance with 40CFR64.2(b)(1)(vi), since the gas turbine is required to use a CEMS (a continuous compliance determination method as defined in 40CFR64.1) to comply with the NO_x limits under PSD, NO_x RACT and Subpart GG, it is exempt from CAM requirements.

Emission Unit Y-00002: Auxiliary Boiler

The stationary gas turbine uses Flue Gas Recirculation (FGR) to meet NO_x RACT limits for the firing of both natural gas and No. 2 fuel oil in a mid-sized boiler as specified under 6NYCRR227-2.4(c). Analysis of the results from a stack test conducted in February 1991, prior to the installation of FGR, shows potential pre-control emissions of NO_x at 65 tpy for the auxiliary boiler firing natural gas (worst case scenario). Since the potential pre-control emissions of NO_x do not meet or exceed the major source threshold of 100 tpy for NO_x, CAM does not apply.

FGR also controls particulate emissions from the auxiliary boiler. In accordance with 6NYCRR227.2(b)(1), particulate emissions from the auxiliary boiler, while firing No. 2 oil, are limited to 0.10 lb/mmBTU. Stack test results (February 1991) show that the potential pre-control emissions of particulates while firing No. 2 oil in the auxiliary boiler are less than 1 tpy, based on the PSD limit of 1440 hrs/yr maximum allowable hours of operation on oil. Since the potential pre-control emissions of particulates do not meet or exceed the major source threshold of 100 tpy, CAM does not apply.