



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 9-1464-00153/00004

Renewal Number: 2

Modification Number: 1 07/12/2018

Facility Identification Data

Name: INDECK-YERKES ENERGY SERVICES

Address: 1 SHERIDAN DR
TONAWANDA, NY 14150

Owner/Firm

Name: INDECK-ENERGY SERVICES INC

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

Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:

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Phone:

Division of Air Resources:

Name: GEOFFREY KNALL

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Air Permitting Contact:

Name: JOHN B KINGSTON

Address: INDECK-YERKES ENERGY PLANT
1 SHERIDAN DR

TONAWANDA, NY 14150-7753

Phone:

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 is for the 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



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the auxiliary boiler. The new burner will be constructed with a heat input rating of 99 MMBtu/hr and capable of firing both natural gas and distillate fuel oil.

To demonstrate compliance with 40 CFR 60 Subpart Dc and 6 NYCRR Part 227-2.4 (c) for emission of NO_x, CO, PM and PM-10, the new burner will be tested 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.

In addition, a screening dispersion modeling analysis was conducted on the new burner being installed into the 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.

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 (SO ₂)	ATTAINMENT
Ozone*	MARGINAL NON-ATTAINMENT
Oxides of Nitrogen (NO _x)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

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

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

Facility Description:

The Indeck-Yerkes Energy Services (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



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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:

- combustion - devices which 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 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 a low NOx burner and flue gas recirculation to control NOx emissions.

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

Process: 010 is located at Building 1 - This process consists of the auxiliary boiler burning natural gas. A low NOx burner and Flue Gas Recirculation are used to control NOx emissions.

Process: 011 is located at Building 1 - 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 unit Y00001 - 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).

00001

Process: 005 is located at Building 1 - This process consists of a GE Frame 6 gas turbine firing on a



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mixture of No. 2 fuel oil and natural gas with or 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 with or without the duct burner firing.

Process: 007 is located at Building 1 - This process consists of a GE Frame 6 gas turbine firing on Number 2 distillate oil with or without the duct 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.

Title V/Major Source Status

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

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) for Oxides of Nitrogen (NOx) in excess of the major source threshold of 100 tons per year as defined 6NYCRR Subpart 201-2. Indeck Yerkes also has facility-wide PTE for sulfur dioxide in excess of the major source thresholds of 100 tons per year.

Indeck-Yerkes is a minor source for emission of total and individual hazardous air pollutants (HAPs), carbon monoxide, volatile organic compounds, lead, particulate matter less than 10 micrometers in diameter (PM-10) and particulate matter less than 2.5 micrometers in diameter (PM-2.5).

Program Applicability

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

Regulatory Program	Applicability
PSD	YES
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	YES
TITLE IV	YES
TITLE V	YES
TITLE VI	NO
RACT	YES



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SIP	YES
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NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52, 6 NYCRR 231-7, 231-8) - 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 231-5, 231-6) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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.

NSPS New Source Performance Standards (40 CFR 60, 6 NYCRR 200.10) - 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, 6 NYCRR 201-6) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subpart A thru G, 6 NYCRR 200.10) - 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 212-3, 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, 6 NYCRR 200.10) - 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



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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

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 INDUSTRIAL BOILER - DISTILLATE OIL 10-100MMBTU/HR **
1-02-006-02	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS 10-100 MMBtu/Hr
2-01-001-01	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 Service 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



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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 of 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 for each contaminant that is displayed represents the facility-wide PTE in tons per year (tpy) or pounds per year (lbs/yr). In some instances the PTE represents a federally enforceable emissions cap or limitation for that contaminant. 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.

Cas No.	Contaminant	PTE lbs/yr	PTE tons/yr	Actual lbs/yr	Actual tons/yr
000124-38-9	CARBON DIOXIDE	683856823			
000630-08-0	CARBON MONOXIDE	131400			
011104-93-1	NITROGEN OXIDE- (USE 0NY210-00-0)	844320			
0NY210-00-0	OXIDES OF NITROGEN	844320			
0NY075-00-0	PARTICULATES	42780			
0NY075-00-5	PM-10	118176			
007704-34-9	SULFUR	3990			
0NY100-00-0	TOTAL HAP	7188			
0NY998-00-0	VOC	31563			

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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 Part 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 Part 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.



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- Item D: Requirement to Comply With All Conditions - 6 NYCRR Part 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 Part 201-6.4(a)(3)**
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- Item F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4(a)(5)**
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.
- Item G: Property Rights - 6 NYCRR 201-6.4(a)(6)**
This permit does not convey any property rights of any sort or any exclusive privilege.
- Item H: Severability - 6 NYCRR Part 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 Part 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;



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- 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 Part 201-6.4(i)

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

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

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

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

Item 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)



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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: 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_02

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.



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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	Condition	Short Description
FACILITY	ECL 19-0301	117	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 52-A.21(j)	31, 32, 33	Best Available Control Technology
Y-00001	40CFR 52-A.21(j)	53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80	Best Available Control Technology
Y-00001/00001/005	40CFR 52-A.21(j)	92, 93	Best Available Control Technology
Y-00001/00001/007	40CFR 52-A.21(j)	94	Best Available Control Technology
Y-00001/00001/009/Y00DB	40CFR 52-A.21(j)	95	Best Available Control Technology
Y-00002	40CFR 52-A.21(j)	96, 97, 98, 99, 100, 101, 103, 1 - 2	Best Available Control Technology
Y-00002/00002/011	40CFR 52-A.21(j)	115	Best Available Control Technology
FACILITY	40CFR 60-A	34	General provisions
FACILITY	40CFR 60-A.11	40	General provisions - compliance with standards and maintenance requirements
FACILITY	40CFR 60-A.12	41	General provisions - Circumvention
FACILITY	40CFR 60-A.13	42	General provisions - Monitoring requirements
FACILITY	40CFR 60-A.4	35	General provisions - Address
FACILITY	40CFR 60-A.7(b)	36	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(c)	37	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(d)	38	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(f)	39	Notification and Recordkeeping
Y-00002/00002/011	40CFR 60-Dc.42c(d)	116	Standard for Sulfur Dioxide Firing Oil. (see narrative)
Y-00002/-/011	40CFR 60-Dc.42c(h)	106	Exemption from Averaging Requirements
Y-00002/-/011	40CFR 60-Dc.42c(i)	107	Standard for Sulfur



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Y-00002/-/011	40CFR 60-Dc.43c(c)	108	Dioxide Period of Requirements. Standard for Opacity.
Y-00002/-/011	40CFR 60-Dc.43c(d)	109	
Y-00002/-/011	40CFR 60-Dc.44c(h)	110	Time Period Requirements for Opacity
Y-00002/-/011	40CFR 60-Dc.45c	111	Alternative Compliance and Performance Test Methods and Procedures for Sulfur Dioxide.
Y-00002/-/011	40CFR 60-Dc.48c	112	Compliance and Performance Test Methods and Procedures for Particulate Matter.
Y-00002/-/011	40CFR 60-Dc.48c(f)(1)	113	Reporting and Recordkeeping Requirements.
FACILITY	40CFR 60-Dc.48c(g)	43	Reporting and Recordkeeping Requirements (distillate oil).
Y-00001	40CFR 60-GG.332(a)(1)	81	Reporting and Recordkeeping Requirements.
Y-00001	40CFR 60-GG.332(f)	82	Standard for Oxides of nitrogen for Gas Turbines > 100 mmBTU/hr
Y-00001	40CFR 60-GG.333(b)	83	Exemption from Section 332(a) of this Subpart.
Y-00001	40CFR 60-GG.334(b)	84	Standard for Sulfur Dioxide
Y-00001	40CFR 60-GG.334(h)(1)	85	Monitoring of Operations: CEMS
Y-00001	40CFR 60-GG.334(h)(2)	86	Sulfur Content of Fuel
Y-00001	40CFR 60-GG.334(h)(3)	87	Nitrogen content of fuel in a gas turbine
Y-00001	40CFR 60-GG.334(i)(1)	88	Allowance not to monitor sulfur or nitrogen for natural gas
Y-00001	40CFR 60-GG.334(j)	89	Frequency of Monitoring - Fuel Oil Reporting
Y-00002	40CFR 63-JJJJJJ	104	Requirements National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers
FACILITY	40CFR 63-ZZZZ	44, 45	Area Sources
FACILITY	40CFR 63-ZZZZ.6603(a)	46	Reciprocating Internal Combustion Engine (RICE) NESHAP



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FACILITY	40CFR 63-ZZZZ.6640(a)	47	- requirements for existing engines at area sources of HAP emissions
FACILITY	40CFR 68	19	Reciprocating Internal Combustion Engine (RICE) NESHAP - Compliance Requirements
Y-00001	40CFR 72	90	Chemical accident prevention provisions
FACILITY	40CFR 82-F	20	Permits regulation
FACILITY	40CFR 97	1 -1	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	40CFR 97-AAAAA.406	48	Federal Cross-State Air Pollution Regulation (CSAPR) Transport Rule (TR) NOx Annual Trading Program Standard
FACILITY	40CFR 97-CCCC.606	50	Requirments Transport Rule (TR) SO2 Group 1 Trading Program Standard
FACILITY	6NYCRR 200.3	21	Requirments
FACILITY	6NYCRR 200.6	1	Transport Rule (TR) SO2 Group 1 Trading Program Standard
FACILITY	6NYCRR 200.7	10	Requirments
FACILITY	6NYCRR 201-1.4	118	False Statement. Acceptable ambient air quality. Maintenance of equipment. Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	11	Recycling and Salvage
FACILITY	6NYCRR 201-1.8	12	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	13	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.2(c)(6)	22	Exempt Activities - emergency power generating units
FACILITY	6NYCRR 201-3.3(a)	14	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	23, 51, 52	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4(a)(4)	15	General Conditions - Requirement to Provide Information
FACILITY	6NYCRR 201-6.4(a)(7)	2	General Conditions - Fees
FACILITY	6NYCRR 201-6.4(a)(8)	16	General Conditions - Right to Inspect
FACILITY	6NYCRR 201-6.4(c)	3	Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.4(c)(2)	4	Records of Monitoring, Sampling and Measurement



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FACILITY	6NYCRR 201-6.4(c)(3)(ii)	5	Reporting Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4(d)(4)	24	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4(e)	6	Compliance Certification
FACILITY	6NYCRR 201-6.4(f)(6)	17	Off Permit Changes
FACILITY	6NYCRR 202-1.1	18	Required emissions tests.
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.1	25	General Prohibitions - air pollution prohibited
FACILITY	6NYCRR 215.2	9	Open Fires - Prohibitions
FACILITY	6NYCRR 225-1.2	26	Sulfur-in-Fuel Limitations
Y-00002/-/011	6NYCRR 227.2(b)(1)	105	Particulate emissions.
FACILITY	6NYCRR 227-1.2(a)(1)	27	Particulate Emissions from Liquid Fuels.
Y-00001/-/007	6NYCRR 227-1.2(b)	91	Particulate Emissions from 2 or More Connected Furnaces.
FACILITY	6NYCRR 227-1.3	28	Smoke Emission Limitations.
FACILITY	6NYCRR 227-1.6	29	Corrective Action.
FACILITY	6NYCRR 227-1.7	30	General Emission Data.
Y-00002/00002	6NYCRR 227-2.4(c)(1)(ii)	114	2010 NOx RACT presumptive limit.
Y-00002	6NYCRR 231-11.2(c)	1 -3	Reasonable Possibility requirements for insignificant mods - greater than 50% with excluded emissions
FACILITY	6NYCRR 242-1.5	119	CO2 Budget Trading Program - Standard requirements
FACILITY	6NYCRR 242-4	120	CO2 Budget Trading Program - Compliance certification
FACILITY	6NYCRR 242-8	121	CO2 Budget Trading Program - Monitoring and reporting

Applicability Discussion:

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

ECL 19-0301

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.

6 NYCRR 200.6

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



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6 NYCRR 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

6 NYCRR 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.

6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 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. 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.

6 NYCRR 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.

6 NYCRR Subpart 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.

6 NYCRR 201-6.4 (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.



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6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 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.



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6 NYCRR 202-2.1

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

6 NYCRR 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.

6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

40 CFR Part 68

This Part lists the regulated substances and there 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 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:

40 CFR 52.21 (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 permit conditions, separately by the permit reviewer.

40 CFR 60.11

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

40 CFR 60.12

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

40 CFR 60.13



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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.

40 CFR 60.332 (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.

40 CFR 60.332 (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.

40 CFR 60.333 (b)

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

40 CFR 60.334 (b)

This regulation allows the owner/operator of a gas turbine to use a CEMS to monitor NO_x emissions instead of monitoring fuel and water/steam usage.

40 CFR 60.334 (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.

40 CFR 60.334 (h) (2)

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

40 CFR 60.334 (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.

40 CFR 60.334 (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.

40 CFR 60.334 (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.

40 CFR 60.4



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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).

40 CFR 60.42c (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.

40 CFR 60.42c (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

40 CFR 60.42c (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.

40 CFR 60.43c (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.

40 CFR 60.43c (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.

40 CFR 60.44c (h)

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

40 CFR 60.45c

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

40 CFR 60.48c

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



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40 CFR 60.48c (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

40 CFR 60.48c (g)

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

40 CFR 60.7 (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.

40 CFR 60.7 (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.

40 CFR 60.7 (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.

40 CFR 60.7 (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.

40 CFR 63.6603 (a)

These conditions list the emission limits, operating limits, and work practices that existing engines located at an area source of HAP emissions must meet.

The engines must meet work practices, emission limits, and operating limits on carbon monoxide or formaldehyde for the specific type of engine listed in table 2d of subpart ZZZZ.

40 CFR 63.6640 (a)

This condition reduces the emissions of hazardous air pollutants from reciprocating internal combustion engines (RICE) by listing what the facility has to do to prove that it is continuously meeting the emission limits listed in this rule.

When the facility conducted the performance test to measure the emissions of pollutants during normal



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engine operation, the facility had to either install a device to continuously measure these emissions or measure parameters which are representative of what the emissions would be during operation of the engine. Then this information must be submitted to the NYSDEC so that DEC can tell from the compliance reports whether the emission limits are being met.

40 CFR 97.406

This condition provides the general requirements for implementing EPAs Transport Rule (TR) 40 CFR Part 97, Subpart AAAAA; intended to reduce the interstate transport of fine particulate matter and ozone. This particular condition requires facilities to measure and report their emissions of Nitrogen Oxide (NOx) and to hold TR annual NOx allowances sufficient to cover these emissions. Commonly referred to as a budget trading program, each State has an established 'budget' of emissions that are distributed or sold to facilities, which, in turn, can only emit as much as they hold in allowances.

40 CFR 97.606

This condition provides the general requirements for implementing EPAs Transport Rule (TR) 40 CFR Part 97, Subpart CCCCC; intended to reduce the interstate transport of fine particulate matter and ozone. This particular condition requires facilities to measure and report their emissions of sulfur dioxide (SO₂) annually and to hold TR annual SO₂ allowances sufficient to cover these emissions. Commonly referred to as a budget trading program, each State has an established 'budget' of emissions that are distributed or sold to facilities, which, in turn, can only emit as much as they hold in allowances.

40 CFR Part 60, Subpart 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

40 CFR Part 63, Subpart JJJJJ

This regulation covers facilities that own or operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195.

40 CFR Part 63, Subpart ZZZZ

40 CFR Part 72

In order to reduce acid rain in 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



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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.

40 CFR Part 97

Cross-State Air Pollution Rule (CSAPR), requires states to significantly improve air quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states.

6 NYCRR 200.3

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

6 NYCRR 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.

6 NYCRR 211.1

This regulation requires that 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.

6 NYCRR 225-1.2

This section of the regulation establishes sulfur-in-fuel limitations for coal, residual oil, distillate oil, and waste oil.

6 NYCRR 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



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establishes a particulate limit of 0.10 lbs/mmBtu based on a 2 hour average emission for any oil fired stationary combustion installation.

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 227-1.3

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

6 NYCRR 227-1.6

6 NYCRR 227-1.7

6 NYCRR 227-2.4 (c) (1) (ii)

Future NOx RACT presumptive limit effective 7/1/14.

6 NYCRR 231-11.2 (c)

This citation lists the record keeping requirements for insignificant modifications that are greater than 50% of the threshold including excluded emissions as defined in 231-4.1(b)(40)(i)(c) of this Part.

6 NYCRR 242-1.5

His regulation requires that the facility hold enough carbon dioxide allowances in their carbon dioxide budget at least equal to the amount of carbon dioxide emitted from the facility each year.

6 NYCRR Subpart 242-4

This citation requires that an Annual Compliance Certification report be submitted by March 1st, on an annual basis, certifying compliance with the CO2 Budget Trading Program.



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6 NYCRR Subpart 242-8

Citation 6NYCRR Part 242-8.5 requires that the record keeping and reporting requirements of 40 CFR Part 75.73 and 6NYCRR Part 242-2.1(e) be followed, that a CO2 monitoring plan(s) be submitted, that the CO2 emission monitor(s) be certified, and that CO2 emissions be reported quarterly in an electronic format.

Non Applicability Analysis

List of non-applicable rules and regulations:

Location Facility/EU/EP/Process/ES	Regulation	Short Description
FACILITY	40 CFR Part 64	COMPLIANCE ASSURANCE MONITORING

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



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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 201-6.4(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 enforcement action.

Compliance Certification

Summary of monitoring activities at INDECK-YERKES ENERGY SERVICES:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
FACILITY	32	work practice involving specific operations
FACILITY	33	work practice involving specific operations
Y-00001	55	intermittent emission testing
Y-00001	56	intermittent emission testing
Y-00001	57	continuous emission monitoring (cem)
Y-00001	58	continuous emission monitoring (cem)
Y-00001	59	continuous emission monitoring (cem)
Y-00001	60	continuous emission monitoring (cem)
Y-00001	61	continuous emission monitoring (cem)
Y-00001	62	continuous emission monitoring (cem)
Y-00001	63	intermittent emission testing
Y-00001	64	continuous emission monitoring (cem)
Y-00001	65	intermittent emission testing
Y-00001	66	monitoring of process or control device parameters as surrogate
Y-00001	67	monitoring of process or control device parameters as surrogate
Y-00001	68	intermittent emission testing
Y-00001	69	intermittent emission testing
Y-00001	70	record keeping/maintenance procedures
Y-00001	71	record keeping/maintenance procedures
Y-00001	72	continuous emission monitoring (cem)
Y-00001	73	intermittent emission testing
Y-00001	74	continuous emission monitoring (cem)
Y-00001	75	record keeping/maintenance procedures
Y-00001	76	work practice involving specific operations
Y-00001	77	record keeping/maintenance procedures
Y-00001	78	continuous emission monitoring (cem)
Y-00001	79	continuous emission monitoring (cem)
Y-00001	80	continuous emission monitoring (cem)
Y-00001/00001/005	92	continuous emission monitoring (cem)
Y-00001/00001/005	93	continuous emission monitoring (cem)
Y-00001/00001/007	94	work practice involving specific operations
Y-00001/00001/009/Y00DB	95	intermittent emission testing
Y-00002	1-2	record keeping/maintenance procedures
Y-00002	97	intermittent emission testing



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Y-00002	98	record keeping/maintenance procedures
Y-00002	99	intermittent emission testing
Y-00002	100	intermittent emission testing
Y-00002	101	intermittent emission testing
Y-00002	103	intermittent emission testing
Y-00002/00002/011	115	work practice involving specific operations
FACILITY	37	record keeping/maintenance procedures
Y-00002/00002/011	116	monitoring of process or control device parameters as surrogate
Y-00002/-/011	108	monitoring of process or control device parameters as surrogate
Y-00002/-/011	113	record keeping/maintenance procedures
FACILITY	43	record keeping/maintenance procedures
Y-00001	81	continuous emission monitoring (cem)
Y-00001	83	monitoring of process or control device parameters as surrogate
Y-00001	85	work practice involving specific operations
Y-00001	86	record keeping/maintenance procedures
Y-00001	87	work practice involving specific operations
Y-00001	88	work practice involving specific operations
Y-00001	89	record keeping/maintenance procedures
Y-00002	104	record keeping/maintenance procedures
FACILITY	46	record keeping/maintenance procedures
FACILITY	47	record keeping/maintenance procedures
FACILITY	1-1	record keeping/maintenance procedures
FACILITY	48	record keeping/maintenance procedures
FACILITY	50	record keeping/maintenance procedures
FACILITY	22	work practice involving specific operations
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
FACILITY	26	work practice involving specific operations
Y-00002/-/011	105	intermittent emission testing
FACILITY	27	intermittent emission testing
FACILITY	28	monitoring of process or control device parameters as surrogate
FACILITY	30	record keeping/maintenance procedures
Y-00002/00002	114	intermittent emission testing
Y-00002	1-3	record keeping/maintenance procedures
FACILITY	119	record keeping/maintenance procedures
FACILITY	120	record keeping/maintenance procedures
FACILITY	121	record keeping/maintenance procedures

Basis for Monitoring

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 emissions of Sulfur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Particulate Matter (PM) and Particulate Matter with a diameter equal to or less than 10 micrometers (PM-10). BACT is an emissions limitation which is based on the best available 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 NO_x, 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, Indeck-Yerkes is required to use only low sulfur fuel oil (0.3% by weight) at all combustion sources at the facility. However, other conditions in this permit set stricter sulfur in fuel limits than this, for example 6NYCRR Subpart 225-1 requires the facility to use oil with no more than 0.0015% sulfur by weight.



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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 was considered 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. To verify compliance with the BACT limits specified for SO₂, PM and PM-10 the sulfur content of the No. 2 fuel oil is monitored each delivery, and the quantity of fuel oil used and hours that the turbine and auxiliary boiler are fired with fuel oil are recorded. 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 quenching of the combustion process to reduce NO_x, the PSD analysis resulted in limiting CO emissions to avoid a significant net emissions increase for PSD purposes. Indeck uses a Continuous Emissions Monitoring System (CEMS) to monitor NO_x and CO levels in the exhaust gas from the gas turbine. Outputs from the CEMS are recorded and stored using a Data Acquisition and Reporting System (DARS). This tracks emissions both on the pound per hour and parts per million basis to ensure emission stay below the established limits. Overall, the results from the BACT analysis are implemented over 42 conditions within the permit. Conditions are listed in the table below.

31	57	63	69	75	92	99
32	58	64	70	76	94	100
53	59	65	71	77	95	101
54	60	66	72	78	96	102
55	61	67	73	79	97	103
56	62	68	74	80	98	115

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.

40 CFR Part 72

Indeck-Yerkes must monitor SO₂ emissions annually from EU Y00001 (the "affected unit", the gas turbine) 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 monitors fuel flow rate and sulfur content to estimate SO₂ emissions. Indeck-Yerkes must submit quarterly emission reports and an annual compliance certification.

6 NYCRR 227-1

Indeck-Yerkes operates a stationary gas turbine with a 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.



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Condition 28, 6 NYCRR 227-1.3

This condition prohibits the facility or any person from operating a stationary combustion installation which exhibits greater than 20 percent opacity from any exhaust (averaged over six minute), except for one six-minute period per hour of not more than 27 percent opacity. Opacity is the measure of opaqueness of the fumes in the exhaust gas stream produced by the emission source. The facility shall observe each combustion installation which is operating on oil once per day for visible emissions. The facility reports compliance with opacity in the quarterly deviation reports.

Condition 26, 6 NYCRR 225-1

Subpart 225-1 limits the amount of sulfur in fuel that is allowed to be combusted. This rule restricts the facility from burning number 2 fuel oil with a sulfur content higher than 0.0015 percent sulfur by weight (15 parts per million). This applies to the fuel oil burned in any combustion source such as the Gas Turbine, Auxiliary Boiler and the Emergency Engine.

Conditions: 119, 120, 121; 6 NYCRR subpart 242-1.5, subpart 242-4 and subpart 242-8

These conditions have been put into the permit for the purpose of monitoring Carbon Dioxide (CO₂). Part 242 is for the CO₂ budget trading program. These conditions require the facility to track and report to the state their CO₂ emissions.

Conditions: 48, 50 and 1-1; 40 CFR Part 97 subpart AAAAA, subpart CCCCC and subpart EEEEE

The requirements of the Clean Air Interstate Rule (CAIR), which contained 6 NYCRR Parts 243, 244 and 245 have been replaced by the federal Cross-State Air Pollution Rule (CSAPR). The CSAPR program is regulated under 40 CFR Part 97, subparts AAAAA, CCCCC and EEEEE.

Condition 113, 40 CFR 60 Subpart Dc

This condition applies to the duck burner and auxiliary boiler. Similar to subpart 225-1 and PSD requirements, this also limits the allowable sulfur content of fuels. However, the sulfur restrictions in subpart Dc are less stringent than the limits place by subpart 225-1 and PSD. This regulation was included in the permit because it still applies.

Condition 81 through 89, 40 CFR 60 Subpart GG

These conditions limit both Sulfur Dioxide and Oxides of Nitrogen. Sulfur dioxide is controlled by limiting the sulfur content of the fuel. Subpart GG, while less restrictive than subpart 225-1, PSD and subpart Dc, still requires the facility to limit the sulfur content of fuel to below 0.8 percent sulfur by weight. The lowest sulfur in fuel limit is 0.0015% by weight in subpart 225-1. Subpart GG also requires that emissions of Oxides of Nitrogen (NO_x) are kept below 75 parts per million (ppm). Emission limits set by PSD and subpart 227 of 45ppm for NO_x are still more restrictive than those in subpart GG. The facility must comply with both limits. Furthermore, Subpart GG monitors these contaminants by requiring that the facility install and maintain a Continuous Emission Monitoring System (CEMS) device. Records from the CEMS are used to show that the facility is complying with the NO_x emission limits this permit. The CEMS monitor and record NO_x and Oxygen emissions.

Condition 104, 40 CFR Part 63, Subpart JJJJJ

The auxiliary boiler is currently not subject to requirements of this rule, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources. However, once the facility operates the auxiliary boiler for more than 48 hours in a year, burning fuel oil, they will



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become subject to the requirements of this regulation. Fuel runtime, quantity and type (gas or oil) are recorded and reported in the quarterly reports for the auxiliary boiler.

Condition 1-3, 6 NYCRR 231-11.2(c)

Indeck-Yerkes project emission potential for the new burner does not surpass the thresholds in 231-8, therefore Yerkes is subject to 231-11 and must retain records of the facility emission and the project emissions.