

**Division of Air Resources
Permit Review Report**

Permit ID: 2-6301-00191/00003

Renewal Number: 3

06/30/2021

Facility Identification Data

Name: ASTORIA GAS TURBINE POWER

Address: 31-01 20TH AVE

ASTORIA, NY 11105

Owner/Firm

Name: ASTORIA GAS TURBINE POWER LLC

Address: 4401 VICTORY BLVD

STATEN ISLAND, NY 10314, USA

Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:

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ALBANY, NY 12233

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Division of Air Resources:

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4401 VICTORY BLVD

STATEN ISLAND, NY 10314

Phone:7183902734

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

The project consists of the renewal of the existing Title V facility which currently employs 12 Pratt & Whitney Twin Pacs (which consist of 24 combustion turbines). These combustion turbines operate in simple cycle mode and are permitted to fire either natural gas or distillate oil.

The applicant proposes to replace the existing Pratt & Whitney simple cycle combustion turbines with a

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single GE H-Class 7HA.03 simple cycle combustion turbine rated at 437 MW of electrical output. This turbine will be permitted to fire natural gas with limited distillate oil firing for backup. Oxides of nitrogen (NOx) will be controlled through the use of a dry low NOx combustor for natural gas firing and an oil/water emulsion for distillate oil firing. Further NOx reductions will occur through the use of a selective catalytic reduction system. The facility will also control carbon monoxide emissions through the use of a catalytic oxidizer.

The project will also include the installation of a 500 kilowatt (kW) oil fired emergency generator, two oil fired fire pump engines rated at 117 kW and 177 kW respectively, an ammonia storage tank and injection skid, a three-winding main generator step-up transformer, an auxiliary transformer, and electrical switchgear. The facility will also curtail and maintain operation of two of the existing Pratt & Whitney turbines for use as black start turbines.

The facility will create emission reduction credits (ERCs) from the shutdown of 22 of the existing turbines and the curtailment of the remaining 2 turbines. These ERCs will be used as net emission reductions which will allow the facility to net out of applicability to new source review for this project.

Attainment Status

ASTORIA GAS TURBINE POWER is located in the town of QUEENS in the county of QUEENS. 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*	SEVERE 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:

The facility is an existing Title V permitted power plant that consists of 12 Pratt & Whitney Twin Pacs (24 combustion turbines). The combustion turbines operate in simple cycle mode and are permitted to fire either natural gas or distillate oil. The facility generally operates during periods of peak load demand.

Permit Structure and Description of Operations

The Title V permit for ASTORIA GAS TURBINE POWER 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

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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.

ASTORIA GAS TURBINE POWER is defined by the following emission unit(s):

Emission unit U00001 - This emission unit contains 31 simple cycle combustion turbines and seven starting engines. There are 12 sets of 2 turbines / generator and they are listed as A & B. These sets burn natural gas or distillate. There are seven additional turbines; 5, 7, 8, and 10 through 13, which burn only distillate oil and have diesel starter engines.

Emission unit U00001 is associated with the following emission points (EP):

GT005, GT007, GT008, GT010, GT011, GT012, GT013, GT21A, GT21B, GT22A, GT22B, GT23A, GT23B, GT24A, GT24B, GT31A, GT31B, GT32A, GT32B, GT33A, GT33B, GT34A, GT34B, GT41A, GT41B, GT42A, GT42B, GT43A, GT43B, GT44A, GT44B

Process: BLG is located at Building GTFAC - Two black start combustion turbines firing natural gas.

Process: BLO is located at Building GTFAC - Two black start combustion turbines firing distillate oil.

Process: CNG is located at Building GTFAC - Natural gas firing in simple cycle combustion turbines.

Emission unit UEGENS - This emission unit consists of a 500 kW emergency diesel engine and two diesel fired fire pump engines rated at 117 kW and 177 kW.

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

EGEN1, FIRE1, FIRE2

Process: EME is located at Building FPBLDG - Fire pumps and emergency engine firing distillate oil.

Emission unit UCTG01 - GE H-Class, model 7HA.03 simple cycle combustion turbine. The turbine fires primarily natural gas with distillate oil as backup fuel.

Emission unit UCTG01 is associated with the following emission points (EP):

STK01

Process: GAS is located at Building CTG - Combustion turbine firing natural gas. Controls include DLN combustion, SCR, and an oxidation catalyst.

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Process: OIL is located at Building CTG - Combustion turbine firing distillate oil. Controls include oil/water emulsion injection system, SCR, and an oxidation catalyst.

Process: SDG is located at Building CTG - Combustion turbine shutdown on natural gas.

Process: SDO is located at Building CTG - Combustion turbine shutdown on distillate oil.

Process: SUG is located at Building CTG - Combustion turbine start-up on natural gas.

Process: SUO is located at Building CTG - Combustion turbine start-up on distillate oil and fuel switching.

Title V/Major Source Status

ASTORIA GAS TURBINE POWER is subject to Title V requirements. This determination is based on the following information:

Astoria Gas Turbine is an existing Title V facility. The proposed project will keep the facility a Title V source. Currently the facility is major for emissions of NOx, SO2, H2SO4, VOC, CO, PM, PM-10, PM-2.5, and CO2e. Once the proposed project is constructed the facility will no longer be major for SO2 and H2SO4.

Program Applicability

The following chart summarizes the applicability of ASTORIA GAS TURBINE POWER with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	YES
NSR (non-attainment)	YES
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
SIP	YES

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

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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, 220-1.6, 220-1.7, 220-2.3, 220-2.4, 226, 227-2, 228, 229, 230, 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 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

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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

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
2-01-001-02	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) Reciprocating
2-01-001-09	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) TURBINE: EXHAUST
2-01-002-09	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - NATURAL GAS TURBINE: EXHAUST
2-02-007-01	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION ENGINE - PROCESS GAS PROCESS GAS INDUSTRIAL TURBINE
2-02-009-01	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION ENGINE - KEROSENE/NAPHTHA (JET FUEL) Turbine

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 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 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

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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
007664-41-7	AMMONIA		67.5		
000124-38-9	CARBON DIOXIDE		674074		
0NY750-00-0	CARBON DIOXIDE		717002		
000630-08-0	EQUIVALENTS CARBON MONOXIDE		92.2		
007439-92-1	LEAD		0.02		
0NY210-00-0	OXIDES OF NITROGEN		100.5		
0NY075-00-0	PARTICULATES		52.6		
0NY075-02-5	PM 2.5		52.6		
0NY075-00-5	PM-10		52.6		
007446-09-5	SULFUR DIOXIDE		7.9		
0NY100-00-0	TOTAL HAP		4.6		
0NY998-00-0	VOC		25.2		

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.

- 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

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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;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information

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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)

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

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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.

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

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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
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FACILITY	ECL 19-0301	62	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 60-A.4	32	General provisions - Address
U-EGENS	40CFR 60-IIII	60	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
U-EGENS	40CFR 63-ZZZZ	61	Reciprocating Internal Combustion Engine (RICE) NESHAP COMPLIANCE ASSURANCE MONITORING
FACILITY	40CFR 64	33	CAM - Operation of approved monitoring
FACILITY	40CFR 64.7	34	Chemical accident prevention provisions
FACILITY	40CFR 68	18	Permits regulation
FACILITY	40CFR 72	35	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	40CFR 82-F	19	Transport Rule (TR) NOx Annual Trading Program Standard Requirments
FACILITY	40CFR 97-AAAAA.406	36	Transport Rule (TR) SO2 Group 1 Trading Program Standard Requirments
FACILITY	40CFR 97-CCCC.606	37	Acceptable ambient air quality.
FACILITY	6NYCRR 200.6	1	Maintenance of equipment.
FACILITY	6NYCRR 200.7	10	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.4	63	Recycling and Salvage
FACILITY	6NYCRR 201-1.7	11	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-1.8	12	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.2(a)	13	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	14	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6	20, 21, 22, 38, 39	

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U-00001	6NYCRR 201-6	40	Title V Permits and the Associated Permit Conditions
U-CTG01	6NYCRR 201-6	42, 43, 44, 45	Title V Permits and the Associated Permit Conditions
U-CTG01/-/GAS	6NYCRR 201-6	48, 49, 50	Title V Permits and the Associated Permit Conditions
U-CTG01/-/OIL	6NYCRR 201-6	54, 55, 56	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 Records of Monitoring, Sampling and Measurement
FACILITY	6NYCRR 201-6.4 (c) (2)	4	Reporting Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4 (c) (3) (ii)	5	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4 (d) (4)	23	Compliance Certification
FACILITY	6NYCRR 201-6.4 (e)	6	Operational Flexibility
FACILITY	6NYCRR 201-6.4 (f)	24	Required emissions tests.
FACILITY	6NYCRR 202-1.1	17	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.1	7	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 202-2.5	8	General Prohibitions - visible emissions limited.
FACILITY	6NYCRR 211.2	25	Open Fires - Prohibitions
FACILITY	6NYCRR 215.2	9	Sulfur-in-Fuel Limitation - Distillate Oil
FACILITY	6NYCRR 225-1.2 (d)	26	Opacity Standard
FACILITY	6NYCRR 227-1.4 (a)	27, 28	System averaging plan.
U-00001	6NYCRR 227-2.5 (b)	41	Netting
FACILITY	6NYCRR 231-6.2	29, 30	
FACILITY	6NYCRR 231-8	31	Mods to Existing Major Facilities in Attainment Areas (PSD)
U-CTG01	6NYCRR 231-8	46, 47	Mods to Existing Major Facilities in Attainment Areas (PSD)
U-CTG01/-/GAS	6NYCRR 231-8	51, 52, 53	Mods to Existing Major Facilities in

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U-CTG01/-/OIL	6NYCRR 231-8	57, 58, 59	Attainment Areas (PSD) Mods to Existing Major Facilities in Attainment Areas (PSD)
FACILITY	6NYCRR 242-1.5	64, 65, 66	CO2 Budget Trading Program - Standard requirements
FACILITY	6NYCRR 242-4	67	CO2 Budget Trading Program - Compliance certification
FACILITY	6NYCRR 242-8.5	68	CO2 Budget Trading Program - Recordkeeping and reporting
U-CTG01	6NYCRR 251.3 (a) (2)	70	Emission limits.
U-00001	6NYCRR 251.3 (b)	69	Emission limits for non-modified sources.

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 measures

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.

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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.

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.

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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) (4)

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 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.

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 211.2

This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

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 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 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.

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Facility Specific Requirements

In addition to Title V, ASTORIA GAS TURBINE POWER has been determined to be subject to the following regulations:

40 CFR 60.4

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).

40 CFR 64.7

This section states the general requirements of operating and maintaining the monitoring system approved under the facility's CAM Plan.

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 (NO_x) and to hold TR annual NO_x 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 IIII

Subpart IIII applies to new and reconstructed compression ignition reciprocating internal combustion engines. Sources subject to Subpart IIII must comply with emission standards for hydrocarbons, nitrogen oxides, carbon monoxide, and particulate matter.

40 CFR Part 63, Subpart ZZZZ

Subpart ZZZZ applies to reciprocating internal combustion engines. Sources subject to Subpart ZZZZ must limit emissions of carbon monoxide and formaldehyde. Sources

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must also comply with work practice standards and operating limits.

40 CFR Part 64

The federal Compliance Assurance Monitoring (CAM) rule, 40 CFR Part 64, requires monitoring of control device, capture system, and/or process parameters to provide a reasonable assurance of compliance with emission limitations or standards. It applies to emission units that use a control device to comply with certain standards and limitations and that have potential pre-control device emissions equal to or greater than a major source threshold.

Acid Rain program requirements; stratospheric ozone protection requirements; post-1990 New Source Performance Standards, Emission Guidelines, and National Emission Standards for Hazardous Air Pollutants; and some other limitations are exempt from CAM. However, many of the exempt requirements are subject to less stringent periodic monitoring under 40 CFR Part 70 and 6NYCRR Subpart 201-6.

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 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.

6 NYCRR 201-6.4 (f)

This section describes the potential for certain operational changes to be made by the facility owner or operator without first obtaining a permit modification. Changes made pursuant to this provision must meet all of the criteria described in this section to qualify for consideration as operational flexibility. The Department reserves the right to require the facility owner or operator to obtain a permit modification prior to making any changes at the facility pursuant to this section.

6 NYCRR 225-1.2 (d)

This subdivision sets the sulfur-in-fuel limitation for distillate oil fired emission sources throughout the State.

6 NYCRR 227-1.4 (a)

This subdivisions sets the opacity standard for subject stationary combustion

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installations.

6 NYCRR 227-2.5 (b)

System averaging plan NO_x RACT compliance option.

6 NYCRR 231-6.2

This section establishes the requirements for performing a netting analyses.

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 242-8.5

This regulation requires the CO₂ authorized account representative to comply with all applicable recordkeeping and reporting requirements in section 242-8.5, the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the certification requirements of section 242-2.1(e) of this Part.

6 NYCRR 251.3 (a) (2)

Emission limits for new or modified sources.

6 NYCRR 251.3 (b)

Emission limits for non-modified sources.

6 NYCRR Subpart 231-8

This subpart applies to modifications to existing major facilities in attainment areas (prevention of significant deterioration (PSD)).

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

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Program.

**Compliance Certification
Summary of monitoring activities at ASTORIA GAS TURBINE POWER:**

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring

U-EGENS	60	record keeping/maintenance procedures
U-EGENS	61	record keeping/maintenance procedures
FACILITY	33	record keeping/maintenance procedures
FACILITY	34	monitoring of process or control device parameters as surrogate
FACILITY	36	record keeping/maintenance procedures
FACILITY	37	record keeping/maintenance procedures
FACILITY	21	monitoring of process or control device parameters as surrogate
FACILITY	22	work practice involving specific operations
U-00001	40	record keeping/maintenance procedures
U-CTG01	42	monitoring of process or control device parameters as surrogate
U-CTG01	43	monitoring of process or control device parameters as surrogate
U-CTG01	44	continuous emission monitoring (cem)
U-CTG01	45	record keeping/maintenance procedures
U-CTG01/-/GAS	48	intermittent emission testing
U-CTG01/-/GAS	49	continuous emission monitoring (cem)
U-CTG01/-/GAS	50	continuous emission monitoring (cem)
U-CTG01/-/OIL	54	intermittent emission testing
U-CTG01/-/OIL	55	continuous emission monitoring (cem)
U-CTG01/-/OIL	56	continuous emission monitoring (cem)
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
FACILITY	27	monitoring of process or control device parameters as surrogate
FACILITY	28	record keeping/maintenance procedures
U-00001	41	record keeping/maintenance procedures
FACILITY	29	monitoring of process or control device parameters as surrogate
FACILITY	30	monitoring of process or control device parameters as surrogate
FACILITY	31	monitoring of process or control device parameters as surrogate
U-CTG01	46	work practice involving specific operations
U-CTG01	47	monitoring of process or control device parameters as surrogate
U-CTG01/-/GAS	51	intermittent emission testing
U-CTG01/-/GAS	52	intermittent emission testing
U-CTG01/-/GAS	53	monitoring of process or control device parameters as surrogate
U-CTG01/-/OIL	57	intermittent emission testing
U-CTG01/-/OIL	58	intermittent emission testing
U-CTG01/-/OIL	59	monitoring of process or control device parameters as surrogate

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FACILITY	65	record keeping/maintenance procedures
FACILITY	66	record keeping/maintenance procedures
FACILITY	67	record keeping/maintenance procedures
FACILITY	68	record keeping/maintenance procedures
U-CTG01	70	continuous emission monitoring (cem)
U-00001	69	continuous emission monitoring (cem)

Basis for Monitoring

The facility is subject to the following monitoring requirements for each regulation listed below:

201-6 - Facility level - A condition limits the annual total CO₂e emissions of the facility on an annual month rolling basis. A condition limits the total annual hours of operation of the black start turbines.

Emission Unit level - Several conditions contain operating emission rate limits during natural gas and oil firing for NO_x, CO, VOC, and NH₃. NO_x, CO, and NH₃ are monitored with CEMs and must meet a one hour average. VOC emission rate limits are stack tested once every 5 years and are averaged based on the USEPA test method used in the stack test.

There are also conditions that define and limit start-up and shutdown as well as require the facility to monitor start-up, shutdown, and fuel switching events then propose limits to the Department.

225-1.2(d) - This condition requires the applicant purchase and fire 15 ppm sulfur content fuel. Compliance is determined through vendor fuel receipts.

227-1.4 - This condition requires the applicant to conduct an annual USEPA Method 9 opacity test on all of the permitted emission sources.

227-2.5(b) - This condition requires the facility to use a system-wide average for NO_x emissions from their existing 24 simple cycle combustion turbines.

231-6.2 - These conditions are netting limits for NO_x and VOC. The facility is required to show compliance by calculating an annual maximum (rolled monthly) emissions total for each pollutant to determine compliance with their net emission limits.

231-8 - Facility level - Condition limits the annual total PM/PM-10/PM_{2.5} emissions on an annual monthly rolling basis.

Emission Unit level - These conditions contain short term BACT emission rates for PM/PM-10/PM-2.5 and CO₂e. The averaging period for the PM/PM-10/PM-2.5 limits are based on the stack testing methods which are conducted once every five years. The CO₂e limits are calculated based on the CEM date, vendor guarantees, and the GHG equivalent rates in Table 9 of 231-13.9.

There are also conditions that limit and requires continuous monitoring of the heat rate of the combustion turbine and gallons per year fired in the combustion turbine.

40 CFR 60 Subpart IIII - This condition requires the applicant to purchase USEPA certified fire pump/emergency engines to comply with the NSPS.

40 CFR 63 Subpart ZZZZ - This condition requires the applicant to purchase USEPA certified fire

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pump/emergency engines to comply with the NESHAP.

40 CFR 64 - This condition contains the CAM requirements for VOC emissions from the proposed combustion turbine. The plan requires the facility to monitor CO with a CEM. Stack test VOC emissions at three loads of operation (minimum, median, and maximum) once every 5 years. Continuously monitor turbine load which is limited to 50% minimum for steady state operation. Then correlate the load and CO CEM emissions. If the CO emissions are noncompliant then it is assumed that the VOC emissions are also non-compliant.

The following regulations apply to the facility but do not appear in the permit as they are less stringent than the citations already included:

40 CFR 60 Subpart KKKK - NSPS for combustion turbines