



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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Division of Air Resources:
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Air Permitting Contact:
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4401 VICTORY BLVD
STATEN ISLAND, NY 10314
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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

Application for renewal of existing Air Title V permit for existing Facility.

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

THIS FACILITY CONSISTS OF 31 COMBUSTION TURBINES AND ASSOCIATE TANKS. ELECTRICITY IS GENERATED THROUGH THE COMBUSTION OF NATURAL GAS AND/OR DISTILLATE OIL. 24 OF THESE ARE PRATT & WHITNEY AND THE REMAINING 7 ARE WESTINGHOUSE TURBINES. ALL ARE IN EU A00005

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 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 A00005 - 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 A00005 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, SD005, SD007, SD008, SD010, SD011, SD012, SD013

It is further defined by the following process(es):
 Process: CNGTHIS PROCESS IS THE COMBUSTION OF COMPRESSED NATURAL GAS IN THE PRATT WHITNEY TURBINES. THIS PROCESS INCLUDES ALL 24 PRATT & WHITNEY TURBINES WHEN THEY ARE FIRING NATURAL GAS.
 Process: GTD is located at OUTDOORS, Building GTFAC - THIS PROCESS INCLUDES THE COMBUSTION OF DISTILLATE FUEL (KEROSENE, #2 FUEL OIL) IN 31 COMBUSTION TURBINES: GT21A, GT21B, THROUGH GT24A, GT24B; GT31A, GT31B, THROUGH GT34A, GT34B; AND, GT41A, GT41B, THROUGH GT44A, GT44B, WHICH ARE RATED AT 255 MMBTU/HR EACH; GT005, GT007, AND GT008 WHICH ARE RATED AT 239 MMBTU/HR EACH; AND, GT010 THROUGH GT013 WHICH ARE RATED AT 345 MMBTU/HR EACH.

Title V/Major Source Status

ASTORIA GAS TURBINE POWER is subject to Title V requirements. This determination is based on the following information:
 The Astoria Gas Turbine Power facility is a Major facility because the potential emissions of Particulates, Carbon Monoxide, Sulfur Dioxide, Oxides of Nitrogen, and Volatile Organic Compounds exceed their respective Major Source Thresholds of 100 TPY, 50 TPY, 100 TPY, 25 TPY, and 25 TPY.

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	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO



NESHAP (MACT - 40 CFR Part 63)	NO
NSPS	NO
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES

NOTES:

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

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

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

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

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

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

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



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

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

Compliance Status

Facility is in compliance with all requirements

SIC Codes

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

SIC Code	Description
4911	ELECTRIC SERVICES

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
2-02-007-01	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 Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air



contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount 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 Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. ONY100-00-0. 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 Name	PTE	
		lbs/yr	Range
000106-99-0	1,3-BUTADIENE		>= 10 tpy
000075-07-0	ACETALDEHYDE		> 0 but < 10 tpy
000107-02-8	ACROLEIN		> 0 but < 10 tpy
007440-36-0	ANTIMONY		> 0 but < 10 tpy
007440-38-2	ARSENIC		> 0 but < 10 tpy
000071-43-2	BENZENE		> 0 but < 10 tpy
007440-41-7	BERYLLIUM		> 0 but < 10 tpy
007440-43-9	CADMIUM		> 0 but < 10 tpy
000630-08-0	CARBON MONOXIDE		>= 250 tpy
007440-47-3	CHROMIUM		> 0 but < 10 tpy
007440-48-4	COBALT		> 0 but < 10 tpy
000100-41-4	ETHYLBENZENE		> 0 but < 10 tpy
000050-00-0	FORMALDEHYDE		> 0 but < 10 tpy
ONY100-00-0	HAP		>= 40 tpy but < 50 tpy
000110-54-3	HEXANE		> 0 but < 10 tpy
007439-92-1	LEAD		> 0 but < 10 tpy
007439-96-5	MANGANESE		> 0 but < 10 tpy
007439-97-6	MERCURY		> 0 but < 10 tpy
000091-20-3	NAPHTHALENE		> 0 but < 10 tpy
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS		> 0 but < 10 tpy
ONY210-00-0	OXIDES OF NITROGEN		>= 250 tpy
ONY075-00-0	PARTICULATES		>= 100 tpy but < 250 tpy
000075-56-9	PROPANE, 1,2-EPOXY-		> 0 but < 10 tpy
007782-49-2	SELENIUM		> 0 but < 10 tpy
007446-09-5	SULFUR DIOXIDE		>= 250 tpy
000108-88-3	TOLUENE		> 0 but < 10 tpy
ONY998-00-0	VOC		>= 50 tpy but < 100 tpy
001330-20-7	XYLENE, M, O & P MIXT.		> 0 but < 10 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.



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

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

201-1.10(b)

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

Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part

201-6.3(a)(4)

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

Item D: Certification by a Responsible Official - 6 NYCRR Part

201-6.3(d)(12)

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

Item E: Requirement to Comply With All Conditions - 6 NYCRR Part

201-6.5(a)(2)

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

Item F: Permit Revocation, Modification, Reopening, Reissuance or

Termination, and Associated Information Submission Requirements - 6

NYCRR Part 201-6.5(a)(3)

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

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6NYCRR

Part 201-6.5(a)(5)

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

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

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

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

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

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

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



abatement authority. Nothing in this permit shall alter or affect the following:

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

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

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

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

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

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

Item L: Permit Exclusion - ECL 19-0305

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



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Renewal Number: 1

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Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)
 All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.
NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5
 Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

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

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
FACILITY		61	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 68	21	Chemical accident prevention provisions
FACILITY	40CFR 82-F	22	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
A-00005/-/GTD	6NYCRR 200.6	58	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10	
FACILITY	6NYCRR 201-1.4	62	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	11	
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 201-3.3 (a)	14	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	23, 55, 56	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5 (a) (4)	15	
FACILITY	6NYCRR 201-6.5 (a) (7)	2	
FACILITY	6NYCRR 201-6.5 (a) (8)	16	
FACILITY	6NYCRR 201-6.5 (c)	3	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5 (c) (2)	4	Permit conditions for Recordkeeping and Reporting of Compliance



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FACILITY	6NYCRR 201-6.5 (c) (3) (ii)	5	Monitoring Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5 (d) (5)	17	
FACILITY	6NYCRR 201-6.5 (e)	6	
FACILITY	6NYCRR 201-6.5 (f) (6)	18	
FACILITY	6NYCRR 202-1.1	19, 24	
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 204-2.1	25	Authorization and Responsibilities of the NOx Authorized Account Representative
FACILITY	6NYCRR 204-4.1	26	Compliance Certification Report
FACILITY	6NYCRR 204-7.1	27	Submission of NOx Allowance Transfers
FACILITY	6NYCRR 204-8.1	28	
FACILITY	6NYCRR 204-8.2	29, 30	Initial Certification and Recertification Procedures
FACILITY	6NYCRR 204-8.3	31	
FACILITY	6NYCRR 204-8.4	32	
FACILITY	6NYCRR 207	33	Control Measures for an Air Pollution Episode
FACILITY	6NYCRR 211.2	63	General Prohibitions - air pollution prohibited.
FACILITY	6NYCRR 211.3	20	General Prohibitions - visible emissions limited
FACILITY	6NYCRR 215	9	
A-00005/-/GTD	6NYCRR 225.1 (a) (3)	59	Sulfur in Fuel Limitations (SIP)
FACILITY	6NYCRR 225-1.7 (c)	34	Emission and fuel monitoring.
FACILITY	6NYCRR 225-1.8 (d)	35	Reports, sampling, and analysis
A-00005/-/GTD	6NYCRR 227.2 (b) (1)	60	
FACILITY	6NYCRR 227-1.3 (a)	36	Smoke Emission Limitations.
FACILITY	6NYCRR 227-2.5 (b)	37	System-wide averaging option.
A-00005	6NYCRR 227-2.6 (c)	57	
FACILITY	6NYCRR 243-1.6 (c)	38	NOx Ozone Season Emission Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (d)	39	Excess Emission Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (e)	40	Recordkeeping and reporting requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-2.1	41	Authorization and responsibilities - CAIR Designated Representative
FACILITY	6NYCRR 243-8.1	42, 43	General Requirements - Monitoring and Reporting Out of control periods - Monitoring and Reporting
FACILITY	6NYCRR 243-8.3	44	Quarterly reports re: recordkeeping and reporting - Monitoring and Reporting
FACILITY	6NYCRR 243-8.5 (d)	45	Compliance certification re: recordkeeping and
FACILITY	6NYCRR 243-8.5 (e)	46	



FACILITY	6NYCRR 244-1	47, 48	reporting - Monitoring and Reporting CAIR NOx Ozone Annual Trading Program General Provisions
FACILITY	6NYCRR 244-2	49	CAIR Designated Representative for CAIR NOx Sources
FACILITY	6NYCRR 244-8	50, 51	Monitoring and Reporting CAIR NOx Allowances
FACILITY	6NYCRR 245-1	52	CAIR SO2 Trading Program General Provisions
FACILITY	6NYCRR 245-2	53	CAIR Designated Representative for CAIR SO2 Sources
FACILITY	6NYCRR 245-8	54	Monitoring and Reporting for CAIR SO2 Trading Program

Applicability Discussion:

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

ECL 19-301.

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

6NYCRR Part 200-.6

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

6NYCRR Part 200-.7

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

6NYCRR Part 201-1.4

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

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-3.2(a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made



available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-3.3(a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-6

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

6NYCRR 201-6.5(a)(4)

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

6NYCRR 201-6.5(a)(7)

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

6NYCRR 201-6.5(a)(8)

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

6NYCRR Part 201-6.5(c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or



measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

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

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

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

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

6NYCRR 201-6.5(d)(5)

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

6NYCRR Part 201-6.5(e)

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

6NYCRR 201-6.5(f)(6)

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

6NYCRR Part 202-1.1

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

6NYCRR Part 202-2.1

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

6NYCRR Part 202-2.5

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

6NYCRR Part 211-2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which



unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3

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

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.

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

40 CFR Part 82, Subpart F

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

6NYCRR 204-2.1

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

6NYCRR 204-4.1

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

6NYCRR 204-7.1

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

6NYCRR 204-8.1

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

6NYCRR 204-8.2

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



6NYCRR 204-8.3

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

6NYCRR 204-8.4

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

6NYCRR 207

This regulation requires the owner or operator to submit an episode action plan to the Department in accordance with the requirements of 6NYCRR Part 207. The plan must contain detailed steps which will be taken by the facility to reduce air contaminant emissions during each stage of an air pollution episode. Once approved, the facility shall take whatever actions are prescribed by the episode action plan when an air pollution episode is in effect.

6NYCRR 225 .1 (a) (3)

This regulation limits the amount of sulfur that can be in fuel burned at a stationary source. It references Table 1 of the 1979 version of the sulfur in fuel limitations expressed in terms of percent by weight for fuel oil and pounds per million Btu gross heat content for solid fuel. **NOTE: This citation has been replaced by requirements cited under 225-1.2(a)(2) and is no longer part of current State regulations, however, it remains part of New York State's approved State Implementation Plan (SIP).**

6NYCRR 225-1.7 (c)

This regulation requires that measurements be made daily of the rate of each fuel burned, the gross heat content and ash content of each fuel burned (determined at least once per week), and the average electrical output (daily) and hourly generation rate.

6NYCRR 225-1.8 (d)

This requires that sampling, compositing and analysis of fuel samples must be done in accordance with methods acceptable to the commissioner.

6NYCRR 227 .2 (b) (1)

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

6NYCRR 227-1.3 (a)

This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

6NYCRR 227-2.5 (b)

The system-wide average shall consist of a weighted average allowable emission rate based upon the weighted average of actual emissions from units that are operating. Excess reductions utilized in the system-wide average may only be counted from the lowest allowable emission rate. Simply put, if there is a more stringent emission limit than RACT already in place on the unit, then excess reductions may only be counted from below that emission rate.

6NYCRR 227-2.6 (c)

This condition specifies that a stack test must be performed to determine the emission of oxides of Nitrogen from the Combustion Turbines at the facility.

6NYCRR 243-1.6 (c)

This citation explains the general provisions of the Clean Air Interstate Rule (CAIR) NOx Ozone Season Trading Program. This ozone season NOx cap and trade program runs from May 1 through September 30 each year, starting



in 2009. Each source shall hold a tonnage equivalent in CAIR NO_x Ozone Season allowances that is not less than the total tons of NO_x emissions for the ozone season.

6NYCRR 243-1.6 (d)

This citation for the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program explains some of the penalties that can be imposed on a CAIR NO_x Ozone Season source that does not surrender enough CAIR NO_x Ozone Season allowances to cover their NO_x Ozone Season emissions.

6NYCRR 243-1.6 (e)

This citation for the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program requires that all reports be submitted as required by this program, and that copies of all records and submissions made for this program be kept on site for at least five years.

6NYCRR 243-2.1

This citation of the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program explains that an CAIR NO_x Ozone Season designated representative must be selected to submit, sign and certify each submission on behalf of the source for the this program.

6NYCRR 243-8.1

This citation of the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program explains that CAIR NO_x Ozone Season Trading Program sources must install, certify and operate monitoring systems that meet the monitoring, recordkeeping, and reporting requirements in Subpart 6 NYCRR 243-8 and in Subpart H of 40 CFR Part 75.

6NYCRR 243-8.3

This citation of the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program explains what to do when an emission monitoring system fails quality assurance, quality control, or data validation requirements.

6NYCRR 243-8.5 (d)

This citation of the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program explains the what requirements the quarterly reports must meet.

6NYCRR 243-8.5 (e)

This citation of the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program explains the compliance certification requirements the source must follow for each quarterly report.

6NYCRR 244-1

This subpart explains the general provisions of the Clean Air Interstate Rule (CAIR) Nitrogen Oxide (NO_x) Annual Trading Program. The control period for this annual NO_x cap and trade program runs from January 1 to December 31 each year, starting in 2009. Each source shall hold a tonnage equivalent in CAIR NO_x allowances that is not less than the total tons of NO_x emissions for the control period.

6NYCRR 244-2

Each Clean Air Interstate Rule (CAIR) NO_x source shall have one CAIR designated representative and may have one alternate representative. Each submission for the CAIR NO_x Annual Trading Program shall be submitted, signed, and certified by the CAIR designated representative or the alternate representative.

6NYCRR 244-8

The owners, operators, and Clean Air Interstate Rule (CAIR) designated representative of a CAIR NO_x unit shall comply with the monitoring, recordkeeping, and reporting requirements as provided in Subpart 6 NYCRR Part 244-8 and in 40 CFR Part 75, Subparts F and G. A certified NO_x emission monitoring system must be used to measure NO_x emissions. NO_x emission reports must be certified and submitted quarterly.

6NYCRR 245-1

This subpart explains the general provisions of the Clean Air Interstate Rule (CAIR) sulfur dioxide (SO₂) Trading Program. The control period for this annual SO₂ cap and trade program runs from January 1 to December 31, starting in the year 2010. Each source shall hold a tonnage equivalent in CAIR SO₂ allowances that is not less than the total tons of SO₂ emissions for the control period.

6NYCRR 245-2

Each Clean Air Interstate Rule (CAIR) SO₂ source shall have one CAIR designated representative and may have one alternate representative. Each submission for the CAIR SO₂ Trading Program shall be submitted, signed, and certified by the CAIR designated representative or the alternate representative.

6NYCRR 245-8

The owners, operators, and Clean Air Interstate Rule (CAIR) designated representative of a CAIR SO₂ unit shall comply with the monitoring, recordkeeping, and reporting requirements as provided in Subpart 6 NYCRR Part 245-8 and in 40 CFR Part 75, Subparts F and G. A certified SO₂ emission monitoring system must be used to measure SO₂ emissions. SO₂ emission reports must be certified and submitted quarterly..

Compliance Certification

Summary of monitoring activities at ASTORIA GAS TURBINE POWER:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
A-00005/-/GTD	58	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
FACILITY	26	record keeping/maintenance procedures
FACILITY	30	record keeping/maintenance procedures
FACILITY	32	record keeping/maintenance procedures
FACILITY	33	record keeping/maintenance procedures
A-00005/-/GTD	59	work practice involving specific operations
FACILITY	34	record keeping/maintenance procedures
A-00005/-/GTD	60	intermittent emission testing
FACILITY	36	monitoring of process or control device parameters as surrogate
FACILITY	37	record keeping/maintenance procedures
A-00005	57	record keeping/maintenance procedures
FACILITY	50	record keeping/maintenance procedures
FACILITY	51	record keeping/maintenance procedures
FACILITY	54	record keeping/maintenance procedures

Basis for Monitoring

Condition # 58 (6NYCRR 200.6) applies to the turbines at the facility when they are fired with oil. This condition limits the daily and annual hourly operation of each turbine and requires the facility to submit



quarterly records to the NYSDEC to verify compliance with the operational limits.

Condition # 5 (6 NYCRR 201-6.5(c)(3)(ii)) is a facility-wide condition that applies to monitoring conditions in all Title V Permits. All facilities that are subject to the Title V requirements must submit reports of any required monitoring to the NYSDEC every six months.

Condition # 6 (6 NYCRR 201-6.5(e)) is a facility-wide record keeping requirement that applies to all Title V facilities. These facilities must submit an annual compliance certification to the NYSDEC and the USEPA.

Condition # 7 (6 NYCRR 202-2.1) is a requirement for all Title V facilities. These facilities must submit an annual emission statement by April 15th of each year.

Condition # 26 (6NYCRR 204-4.1) This condition covers the compliance certification report requirements for the NOx Budget Program.

Condition # 30 (6NYCRR 204-8.2) This condition covers the procedures for initially certifying and recertifying the continuous emission monitoring systems to meet the requirements of the NOx Budget Program.

Condition # 32 (6NYCRR 204-8.4) This condition lists the addresses where monitoring plans and their modifications, compliance certifications, recertifications, quarterly QA/QC reports and petitions for alternative monitoring are to be sent.

Condition # 33 (6NYCRR 207): This regulation requires the owner or operator to submit an episode action plan to the Department in accordance with the requirements of 6NYCRR Part 207. The plan must contain detailed steps which will be taken by the facility to reduce air contaminant emissions during each stage of an air pollution episode. Once approved, the facility shall take whatever actions are prescribed by the episode action plan when an air pollution episode is in effect.

Condition # 34 (6NYCRR 225-1.7(c)) This condition requires that measurements are made daily of the rate of each fuel burned, that the gross heat content and ash content of each fuel burned are measured at least once per week, and that the average daily electrical output and hourly generation rate are determined.

Condition # 59 (6NYCRR 225.1(a)(3)) This condition states that the sulfur content of the distillate oil burned in the turbines at the facility can not exceed 0.04 percent by weight.

Condition # 36 (6NYCRR 227-1.3(a)) This condition specifies opacity limits for the turbines at the facility and the compliance monitoring procedures.

Condition # 37 (6NYCRR 227-2.5(b)) This condition specifies that NRG Energy Inc.'s system-wide averaging of NOx emissions from its facilities in New York State (including the Astoria Gas Turbine Power facility) must be performed in accordance with its NOx RACT System-wide Compliance Plan, dated February 25, 2000, approved by the Department on August 30, 2000. Records must be kept in accordance with the Plan and compliance demonstrated on a 24 hour basis during the Ozone season and on a 30 day rolling average for the rest of the year. The system-wide average shall consist of a weighted average allowable emission rate based upon the weighted average of actual emissions from units that are operating.

Condition # 57 (6NYCRR 227-2.6(c)) This condition states that a stack test must be performed on the turbines at the facility to determine the emissions of oxides of nitrogen. certification for the Pre-2003 NOx Budget Trading Program.



Condition # 60 (6NYCRR 227.2(b)(1)) This condition states that the particulate emissions from the turbines at the facility can not exceed 0.10 pounds per million Btu when firing oil. A stack test must be performed to verify compliance with this limit.

Conditions # 50, 51 (6NYCRR 244-8) **and # 54** (6NYCRR 245-8): These are the monitoring and reporting conditions for CAIR NO_x Allowances and CAIR SO₂ Trading program.