



**Facility Identification Data**

Name: ARTHUR KILL GENERATING STATION  
Address: 4401 VICTORY BLVD  
STATEN ISLAND, NY 10314

**Owner/Firm**

Name: ARTHUR KILL POWER LLC  
Address: 4401 VICTORY BOULEVARD  
STATEN ISLAND, NY 10314, USA  
Owner Classification: Corporation/Partnership

**Permit Contacts**

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Division of Air Resources:  
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Phone:7184824944

Air Permitting Contact:  
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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**

Application for renewal of Air Title V Facility.

**Attainment Status**

ARTHUR KILL GENERATING STATION is located in the town of STATEN ISLAND in the county of RICHMOND.

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 < 10 $\mu$ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO <sub>2</sub> )	ATTAINMENT
Ozone*	SEVERE NON-ATTAINMENT
Oxides of Nitrogen (NO <sub>x</sub> )**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

\* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NO<sub>x</sub>) which are ozone precursors.

\*\* NO<sub>x</sub> has a separate ambient air quality standard in addition to being an ozone precursor

### Facility Description

This facility produces electricity. It operates two very large boilers rated at 3717 MMBtu/hr and 5502 MMBtu/hr and one medium size boiler rated at 65 MMBtu/hr. The very large boilers combust residual fuel and natural gas and the medium size boiler combusts natural gas only. The facility also has one combustion turbine rated at 235 MMBtu/hr. The turbine can combust distillate fuel or natural gas. There are two lube oil vapor extractors. Emergency coal burning capabilities exist at this facility. There are two lube oil vapor extractors. Emergency coal burning capabilities exist at the facility.

### Permit Structure and Description of Operations

The Title V permit for ARTHUR KILL GENERATING STATION 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.

ARTHUR KILL GENERATING STATION is defined by the following emission unit(s):

Emission unit AK0003 - One house boiler rated at 65 MMBtu/hr. This boiler combusts natural gas and is equipped with a flue gas recirculation system.

Emission unit AK0003 is associated with the following emission points (EP):  
00003

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

Process: NG3 is located at Floor 1, Building BOILERRM - This process includes one House Boiler rated at 65 MMBtu/hr. This process covers the combustion of natural gas in this boiler.

Emission unit AK0005 - One combustion turbine rated at 235 MMBtu/hr which can combust distillate or natural gas. The combustion turbine is equipped with a diesel starter engine.

Emission unit AK0005 is associated with the following emission points (EP):  
GT001

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

Process: GTD is located at Ground, Building GTFAC - This process includes one combustion turbine rated at 235 MMBtu/hr. This process covers combustion of distillate fuel oil.

Process: GTN is located at Ground, Building GTFAC - This process includes one combustion turbine rated at 235 MMBtu/hr. This process covers combustion of natural gas.

Emission unit AK0013 - Emission unit consists of two emergency diesel-fired generators. They are added to accommodate placing a condition in the permit to address an archival particulate limit of 0.10 lbs/MMBtu on each unit, found in a previous version of the Part 227 regulation (5/1/72 - SIP approved 9/22/72). The generators are housed in the Turbine Room. Each generator is tested once per week for approximately one hour. The generators will be operated less than 500 hours per year.

Emission unit AK0013 is associated with the following emission points (EP):  
EG001, EG002

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

Process: EMG is located at Building TURBINERM - This process includes firing distillate oil in the two emergency generators. Each generator is tested once per week for approximately one hour. The generators will be operated less than 500 hours per year.

Emission unit AK0001 - Very large boilers 20 and 30. Boiler 20 is face fired and Boiler 30 is tangentially fired.

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

Process: BC1 is located at Building BOILERHS - This process is for the chemical cleaning of the boiler tubes for Boiler 20. The boiler tubes will be cleaned using EDTA method. This process is considered ordinary maintenance of the boiler and is a trivial activity under 6NYCRR 201-3.3(c)(45) - Maintenance and Construction activities. No reporting is required for this process. However, the facility will maintain records of boiler chemical cleaning activities.

Process: BC2 is located at Building BOILERHS - This process is for the chemical cleaning of the boiler tubes for Boiler 30. The boiler tubes will be cleaned using EDTA method. This process is considered ordinary maintenance of the boiler and is a trivial activity under 6NYCRR 201-3.3(c)(45) - Maintenance and Construction activities. No reporting is required for this process. However, the facility will maintain records of boiler chemical cleaning activities.

Process: NG1 is located at Floor 1, Building BOILERHS - This process includes one face fired boiler (Boiler 20). This boiler is rated at 3717 MMBtu/hr. This process covers the combustion of natural gas in this boiler.

Process: NG2 is located at Floor 1, Building BOILERHS - This process includes one tangentially fired boiler



(Boiler 30). This boiler is rated at 5502 MMBtu/hr. This process covers the combustion of natural gas in this boiler. Process: RO1 is located at Floor 1, Building BOILERHS - This process includes one face fired boiler (Boiler 20). This boiler is rated at 3717 MMBtu/hr. This process covers the combustion of residual oil in this boiler. Process: RO2 is located at Floor 1, Building BOILERHS - This process includes one tangentially fired boiler (Boiler 30). This boiler is rated at 5502 MMBtu/hr. This process covers the combustion of residual oil in this boiler.

### Title V/Major Source Status

ARTHUR KILL GENERATING STATION is subject to Title V requirements. This determination is based on the following information:

This is a major facility as the annual emissions of NO<sub>x</sub>, CO, VOC, HAP, Particulates are above the threshold limits of a major facility.

### Program Applicability

The following chart summarizes the applicability of ARTHUR KILL GENERATING STATION 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	YES
TITLE IV	YES
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
3-01-009-99	CHEMICAL MANUFACTURING CHEMICAL MANUFACTURING - CLEANING CHEMICALS Other Not Classified
1-01-006-02	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - NATURAL GAS Boilers < 100 MBtu/Hr except Tangential
1-01-006-01	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - NATURAL GAS Boilers > 100 MBtu/Hr except Tangential
1-01-006-04	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - NATURAL GAS Tangentially Fired Units
1-01-004-01	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - RESIDUAL OIL Grade 6 Oil: Normal Firing
1-01-004-04	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - RESIDUAL OIL Grade 6 Oil: Tangential Firing
2-01-001-02	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) Reciprocating
2-01-001-01	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) Turbine
2-01-002-01	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - NATURAL GAS Turbine

### Facility Emissions Summary

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



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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	pteyear	Y
000075-07-0	ACETALDEHYDE	pteyear	Y
000107-02-8	ACROLEIN	pteyear	Y
007440-36-0	ANTIMONY	pteyear	Y
007440-38-2	ARSENIC	pteyear	Y
000071-43-2	BENZENE	pteyear	Y
000095-47-6	BENZENE,1,2-DIMETHYL	pteyear	Y
007440-41-7	BERYLLIUM	pteyear	Y
007440-43-9	CADMIUM	pteyear	Y
000630-08-0	CARBON MONOXIDE	pteyear	H
007440-47-3	CHROMIUM	pteyear	Y
016065-83-1	CHROMIUM (III)	pteyear	Y
007440-48-4	COBALT	pteyear	Y
000100-41-4	ETHYLBENZENE	pteyear	Y
016984-48-8	FLUORIDE	pteyear	A
000050-00-0	FORMALDEHYDE	pteyear	Y
0NY100-00-0	HAP	pteyear	G
000110-54-3	HEXANE	pteyear	Z
007647-01-0	HYDROGEN CHLORIDE	pteyear	Z
007439-92-1	LEAD	pteyear	Y
007439-96-5	MANGANESE	pteyear	Y
007439-97-6	MERCURY	pteyear	Y
000091-20-3	NAPHTHALENE	pteyear	Y
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS	pteyear	Y
0NY210-00-0	OXIDES OF NITROGEN	pteyear	H
0NY075-00-0	PARTICULATES	pteyear	H
007723-14-0	PHOSPHORUS (YELLOW)	pteyear	Y
0NY075-00-5	PM-10	pteyear	H
130498-29-2	POLYCYCLIC AROMATIC HYDROCARBONS	pteyear	Y
007782-49-2	SELENIUM	pteyear	Y
007446-09-5	SULFUR DIOXIDE	pteyear	H
007664-93-9	SULFURIC ACID	pteyear	H
000108-88-3	TOLUENE	pteyear	Y
0NY998-00-0	VOC	pteyear	G
001330-20-7	XYLENE, M, O & P MIXT.	pteyear	Y



## 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 - 6 NYCRR 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.

**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	ECL 19-0301	53	Powers and Duties of the Department with respect to air pollution control
A-K0003	40CFR 60-Dc.48c	37	Reporting and Recordkeeping Requirements.
FACILITY	40CFR 68	21	Chemical accident prevention provisions
FACILITY	40CFR 72	32	
FACILITY	40CFR 82-F	22	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10	
FACILITY	6NYCRR 201-1.4	54	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, 33, 34	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 Monitoring
FACILITY	6NYCRR 201-6.5 (c) (3) (ii)	5	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	



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FACILITY	6NYCRR 201-6.5 (g)	24	
FACILITY	6NYCRR 202-1.1	19	
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
A-K0005	6NYCRR 204-1.6	39	
A-K0005	6NYCRR 204-2.1	40	Authorization and Responsibilities of the NOx Authorized Account Representative
A-K0005	6NYCRR 204-4.1	41	Compliance Certification Report
A-K0005	6NYCRR 204-7.1	42	Submission of NOx Allowance Transfers
A-K0005	6NYCRR 204-8.2	43, 44	Initial Certification and Recertification Procedures
A-K0005	6NYCRR 204-8.3	45	
A-K0005	6NYCRR 204-8.4	46	
A-K0005	6NYCRR 204-8.7	47	Additional Requirements to Provide Heat Input Data for Allocations Purposes
FACILITY	6NYCRR 207	25	Control Measures for an Air Pollution Episode
FACILITY	6NYCRR 211.2	55	General Prohibitions - air pollution prohibited.
FACILITY	6NYCRR 211.3	20	General Prohibitions - visible emissions limited
FACILITY	6NYCRR 215	9	
FACILITY	6NYCRR 225-1.2 (a) (2)	26, 27	Sulfur in Fuel Limitations Post 12/31/87.
FACILITY	6NYCRR 225-1.7 (c)	28	Emission and fuel monitoring.
FACILITY	6NYCRR 225-1.8	29	Reports, sampling and analysis.
A-K0005/GT001	6NYCRR 227.2 (b) (1)	50	
A-K0013/EG001	6NYCRR 227.2 (b) (1)	51	
A-K0013/EG002	6NYCRR 227.2 (b) (1)	52	
FACILITY	6NYCRR 227-1.3	30	Smoke Emission Limitations.
A-K0005	6NYCRR 227-1.3	48	Smoke Emission Limitations.
A-K0003/-/NG3/00040	6NYCRR 227-2.4 (c) (1) (i)	38	Control Requirements for mid-sized boilers firing gas and/or distillate oil which utilize approved technology.
FACILITY	6NYCRR 227-2.5 (b)	31	System-wide averaging option.
A-K0001	6NYCRR 227-2.6 (a) (1)	35	Testing, monitoring, and reporting requirements for very large boilers.
A-K0003	6NYCRR 227-2.6 (c)	36	
A-K0005	6NYCRR 227-2.6 (c)	49	

**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 201-6.5(g)

Permit Exclusion Provisions - specifies those actions, such as administrative orders, suits, claims for natural resource damages, etc that are not affected by the federally enforceable portion of the permit, unless they are specifically addressed by it.

6NYCRR Part 202-1.1

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

6NYCRR Part 202-2.1

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

6NYCRR Part 202-2.5

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

6NYCRR Part 211-2

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

6 NYCRR Part 211.3

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

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.

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



releases of these substances.

#### 40 CFR Part 82, Subpart F

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

#### 40CFR 60-Dc.48c

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

#### 40CFR 72

In order to reduce acid rain the the U.S. and Canada, Title IV of the Clean Air Act Amendments of 1990 requires the establishment of a program to reduce emissions of SO<sub>2</sub> and NO<sub>x</sub> (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 SO<sub>2</sub> 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 SO<sub>2</sub>. The utilities are required to limit SO<sub>2</sub> emissions to the number of allowances they hold. Some can benefit however by reducing their emissions and selling their excess allowances. Part 72 contains the means of implementing this portion of Title IV of the Clean Air Act.

#### 6NYCRR 204-1.6

This condition requires the designated representative of the permittee to make submissions for the NO<sub>x</sub> Budget Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

#### 6NYCRR 204-2.1

This condition states the submission requirements for the NO<sub>x</sub> 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 NO<sub>x</sub> Budget Program.

#### 6NYCRR 204-7.1

This condition lists the requirements for transfer of allowances in the NO<sub>x</sub> Budget Program.



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 to not meet applicable quality assurance requirements.

6NYCRR 204-8.4

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

6NYCRR 204-8.7

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

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 225-1.2 (a) (2)

This regulation prohibits any person from selling, offering for sale, purchasing or using any fuel which contains sulfur in a quantity exceeding the limitations set forth in Table 1, Table 2, or Table 3 of this section.

6NYCRR 225-1.7 (c)

This regulation requires 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

This regulation requires an owner or operator of a facility which purchases and fires coal and/or oil to submit reports to the commissioner containing fuel analysis data, information on the quantity of the fuel received, burned, and results of any stack sampling, stack monitoring and any other procedures to ensure compliance with the provisions of 6 NYCRR Part 225-1.

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

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

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

This subparagraph regulates the emission rates for oxides of nitrogen from midsized boilers firing gas and/or distillate oil which utilize approved technology.

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 (a) (1)

This regulation establishes the monitoring requirements for NO<sub>x</sub> RACT affected very large boilers (boilers with a heat input of greater than 250 mmBtu/hr).

6NYCRR 227-2.6 (c)

This condition is to comply with the requirement for the stack test for NO<sub>x</sub> emissions once during the permit term.

**Compliance Certification**

Summary of monitoring activities at ARTHUR KILL GENERATING STATION:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
A-K0005	41	record keeping/maintenance procedures
A-K0005	44	record keeping/maintenance procedures
A-K0005	46	record keeping/maintenance procedures
A-K0005	47	record keeping/maintenance procedures
FACILITY	26	work practice involving specific operations
FACILITY	27	work practice involving specific operations
FACILITY	28	record keeping/maintenance procedures
FACILITY	29	record keeping/maintenance procedures
A-K0005/GT001	50	intermittent emission testing
A-K0013/EG001	51	intermittent emission testing
A-K0013/EG002	52	intermittent emission testing
FACILITY	30	record keeping/maintenance procedures
A-K0005	48	record keeping/maintenance procedures
FACILITY	31	record keeping/maintenance procedures
A-K0003	36	record keeping/maintenance procedures
A-K0005	49	record keeping/maintenance procedures

**Basis for Monitoring**

Condition # 5 (6 NYCRR Part 201-6.5(c)(3)(ii)): This 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 Part 201-6.5(e)): This 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 Part 202-2.1): This facility level monitoring condition is a requirement for all Title



V facilities. These facilities must submit an annual emission statement by April 15th of each year.

Conditions # 41 (6 NYCRR 204-4.1); # 44 (6 NYCRR 204-8.2); # 46 (6NYCRR 204-8.4); and # 47 (6 NYCRR 204-8.7) are the requirements for the Title V facilities under NOx Budget Trading Program under 6 NYCRR 204. This facility is a mandatory participant in the NOx budget program and is required to retain and submit reports on quarterly basis to USEPA and NYSDEC.

Condition # 26, # 27 (6 NYCRR Part 225-1.2(a)(2)); # 28 (6NYCRR 225-1.7(c)); # 29 (6NYCRR 225-1.8) : These conditions are to monitor the fuel oil and its sulfur content used at the facility. The sulfur content must be certified by the seller. The facility must maintain a log of the sulfur content of oil on a per delivery basis.

Condition # 50, # 51, # 52, (6 NYCRR 227.2(b)(1)): These conditions are for monitoring, testing and reporting requirement for particulate emissions from the emergency diesel generators.

Condition # 30, # 48 (6 NYCRR 227-1.3): These conditions are for monitoring and reporting for opacity limit.

Condition # 31 (6 NYCRR 227-2.5(b)); # 36, # 49 (6NYCRR 227-2.6(c)): These conditions are for the monitoring of NOx emissions for system wide averaging and stack tests.