



**Facility Identification Data**

Name: FREEPORT POWER PLANT #2  
Address: 289 BUFFALO AVE  
FREEPORT, NY 11520

**Owner/Firm**

Name: VILLAGE OF FREEPORT  
Address: 46 N OCEAN AVE  
FREEPORT, NY 11520-3023, USA  
Owner Classification: Municipal

**Permit Contacts**

Division of Environmental Permits:  
Name: KEVIN A KISPERT  
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50 CIRCLE RD  
STONY BROOK, NY 11790  
Phone:6314440302

Division of Air Resources:  
Name: JOHN L HENKES, III  
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ALBANY, NY 12233  
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Air Permitting Contact:  
Name: ANTHONY FIORE  
Address: FREEPORT POWER PLANT  
220 W SUNRISE HWY  
FREEPORT, NY 11520

**Permit Description**

**Introduction**

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

**Summary Description of Proposed Project**

The Village of Freeport constructed a new gas turbine facility at Freeport Power Plant #2. The new facility was constructed immediately adjacent to an existing structure containing two diesel engines. The new facility consist of a General Electric (GE) LM6000 Sprint simple cycle combustion turbine; with a total nominal electrical power output of less than 50 MW. The combustion turbine primaraly fires natural gas but may fire distilate oil as a back-up. The unit operates in simple cycle mode (no heat recovery) to provide electric generation. The turbine utilizes inlet chillers and selective catalytic reduction (SCR) to control nitrogen oxide (NOx) emissions and an oxidation catalyst is used to control emissions of carbon monoxide (CO) and volatile organic compounds (VOC). Upon leaving the turbine, the exhaust will be directed into a 180foot stack.



Pursuant to 6NYCRR Part 201, the Village opted to obtain a preconstruction permit and certificate to operate authorizing the construction and operation of the facility, pursuant to 6 NYCRR Subpart 201-6.1, prior to obtaining this Title V permit.

The two diesel engines of the original power plant have been removed; which created "Emission Reduction Credits"

### Attainment Status

FREEPORT POWER PLANT #2 is located in the town of HEMPSTEAD in the county of NASSAU. 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

In addition to the newly constructed LM -6000 combustion turbine there is an existing Curtis Write combustion turbine which is primarily used as a black start unit. The units are located on the existing power plant no. 2 site and generate electricity for use by the Village of Freeport, or for sale to the LIPA power grid.

### Permit Structure and Description of Operations

The Title V permit for FREEPORT POWER PLANT #2 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.

FREEPORT POWER PLANT #2 is defined by the following emission unit(s):

Emission unit 200004 - COMBUSTION TURBINE, RATED AT 280 MMBTU/HR, FIRES NO. 2 FUEL OIL.

Emission unit 200004 is associated with the following emission points (EP):  
00004

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

Process: 203 is located at GROUND FLOOR, Building PP2 - SINGLE COMBUSTION TURBINE RATED AT 280 MMBTU/HR FIRES No. 2 FUEL OIL

Emission unit U00005 - EMISSION UNIT U00005 REPRESENTS A SINGLE COMBUSTION TURBINE FIRING NATURAL GAS WITH LOW SULFUR (0.05%) DISTILLATE OIL AS BACKUP. UNIT IS EQUIPPED WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND WATER INJECTION TO CONTROL NOX EMISSIONS AND AN OXIDATION CATALYST TO CONTROL CO AND VOC EMISSIONS. UNIT VENTS THROUGH A 180-FOOT TALL STACK.

Emission unit U00005 is associated with the following emission points (EP):  
EP005

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

Process: GASEMISSION UNIT U00005, PROCESS GAS, REPRESENTS A SINGLE COMBUSTION TURBINE FIRING NATURAL GAS. WATER INJECTION AND SELECTIVE CATALYTIC REDUCTION (SCR) WILL BE EMPLOYED FOR THE CONTROL OF NOX EMISSIONS. AN OXIDATION CATALYST WILL BE EMPLOYED TO CONTROL CO AND VOC EMISSIONS.

Process: OILEMISSION UNIT U00005, PROCESS OIL, REPRESENTS A SINGLE COMBUSTION TURBINE FIRING LOW SULFUR (0.05%) DISTILLATE OIL. WATER INJECTION AND SELECTIVE CATALYTIC REDUCTION (SCR) WILL BE EMPLOYED FOR THE CONTROL OF NOX EMISSIONS. AN OXIDATION CATALYST WILL BE EMPLOYED TO CONTROL CO AND VOC EMISSIONS.

#### **Title V/Major Source Status**

FREEPORT POWER PLANT #2 is subject to Title V requirements. This determination is based on the following information:

This facility is classified as "major" for Title V permitting purposes. Its emissions exceed the "major facility" threshold levels for NOx, SO2, CO, particulates and VOC.'s. The classification of the facility as "major" triggers the requirement to obtain a Title V permit in order to operate.

#### **Program Applicability**

The following chart summarizes the applicability of FREEPORT POWER PLANT #2 with regards to the principal



air pollution regulatory programs:

Regulatory Program	Applicability
PSD	NO
NSR (non-attainment)	YES
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.

<b>SIC Code</b>	<b>Description</b>
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.

<b>SCC Code</b>	<b>Description</b>
2-01-001-01	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL)
2-01-001-09	Turbine INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION



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2-01-002-01 ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL)  
 TURBINE: EXHAUST  
 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 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. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
007664-41-7	AMMONIA	>= 10	tpy but < 25 tpy
000630-08-0	CARBON MONOXIDE	>= 50	tpy but < 100 tpy
0NY210-00-0	OXIDES OF NITROGEN	>= 40	tpy but < 50 tpy
0NY075-00-0	PARTICULATES	>= 10	tpy but < 25 tpy
007446-09-5	SULFUR DIOXIDE	>= 2.5	tpy 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.



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**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.

**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		95	Powers and Duties of the Department with respect to air pollution control
U-00005	40CFR 52-A.21	55, 57, 58	Prevention of Significant Deterioration
U-00005	40CFR 60-A.12	78	General provisions - Circumvention
U-00005	40CFR 60-A.13	79	General provisions - Monitoring requirements
U-00005	40CFR 60-A.14	80	General provisions - Modification
U-00005	40CFR 60-A.15	81	General provisions - Reconstruction
U-00005	40CFR 60-A.4	72	General provisions - Address
U-00005	40CFR 60-A.7(b)	73	Notification and Recordkeeping
U-00005	40CFR 60-A.7(c)	74	Notification and Recordkeeping
U-00005	40CFR 60-A.7(d)	75	Notification and Recordkeeping
U-00005	40CFR 60-A.7(f)	76	Notification and Recordkeeping
U-00005	40CFR 60-A.9	77	General provisions - Availability of information
U-00005	40CFR 60-GG.334(h)	82	
FACILITY	40CFR 68	19	Chemical accident prevention provisions
FACILITY	40CFR 72	43	
FACILITY	40CFR 82-F	20	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	8	
FACILITY	6NYCRR 201-1.4	96	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	9	



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FACILITY	6NYCRR 201-1.8	10	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2 (a)	11	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3 (a)	12	Trivial Activities - proof of eligibility
U-00005	6NYCRR 201-5	107	State Facility Permit General Provisions
FACILITY	6NYCRR 201-6	21, 44, 45	Title V Permits and the Associated Permit Conditions
U-00005	6NYCRR 201-6	51, 52, 53, 54	Title V Permits and the Associated Permit Conditions
U-00005/EP005/GAS	6NYCRR 201-6	83, 84, 85, 86, 87, 88	Title V Permits and the Associated Permit Conditions
U-00005/EP005/OIL	6NYCRR 201-6	89, 90, 91, 92, 93, 94	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5 (a) (4)	13	
FACILITY	6NYCRR 201-6.5 (a) (7)	2	
FACILITY	6NYCRR 201-6.5 (a) (8)	14	
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)	22	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5 (d) (5)	15	
FACILITY	6NYCRR 201-6.5 (e)	23	
FACILITY	6NYCRR 201-6.5 (f) (6)	16	
FACILITY	6NYCRR 201-7.2	46	Emissions capping using synthetic minor permits
U-00005	6NYCRR 201-7.2	55, 56, 57, 58, 59	Emissions capping using synthetic minor permits
FACILITY	6NYCRR 202-1.1	17	
U-00005	6NYCRR 202-1.1	60	
FACILITY	6NYCRR 202-2.1	5	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	6	Emission Statements - record keeping requirements.
2-00004/00004/203/00004	6NYCRR 204-1.4	50	
U-00005	6NYCRR 204-2.1	61	Authorization and Responsibilities of the NOx Authorized Account Representative
U-00005	6NYCRR 204-4.1	62, 63, 64	Compliance Certification Report
U-00005	6NYCRR 204-7.1	65	Submission of NOx Allowance Transfers
U-00005	6NYCRR 204-8.1	66, 67	
U-00005	6NYCRR 204-8.2	68	Initial Certification and Recertification Procedures
U-00005	6NYCRR 204-8.3	69	
U-00005	6NYCRR 204-8.4	70	
U-00005	6NYCRR 204-8.7	71	Additional Requirements to Provide Heat Input Data for Allocations Purposes
FACILITY	6NYCRR 211.2	97	General Prohibitions - air pollution prohibited.
FACILITY	6NYCRR 211.3	18	General Prohibitions - visible emissions



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FACILITY	6NYCRR 215	7	limited
2-00004/00004	6NYCRR 225-1.2 (a) (2)	49	Sulfur in Fuel Limitations Post 12/31/87.
2-00004/-/203/00004	6NYCRR 227-1.2 (a) (1)	47	Particulate Emissions from Liquid Fuels.
FACILITY	6NYCRR 227-1.3 (a)	24	Smoke Emission Limitations.
2-00004/-/203/00004	6NYCRR 227-2.4 (e) (1)	48	RACT requirements for Simple cycle and regenerative combustion turbines
U-00005	6NYCRR 231-2	56, 59	New Source Review in Nonattainment Areas and Ozone Transport Region
FACILITY	6NYCRR 231-2.6	25	Emission reduction credits
FACILITY	6NYCRR 237-1.6 (c)	98	Nitrogen oxides requirements
FACILITY	6NYCRR 237-1.6 (e)	99	Recordkeeping and reporting requirements
FACILITY	6NYCRR 237-2	100	NOx Authorized account representative for NOx budget sources
FACILITY	6NYCRR 237-4.1	101	Compliance certification report.
FACILITY	6NYCRR 237-8	102	MONITORING AND REPORTING
FACILITY	6NYCRR 238-1.6 (a)	103	Sulfur Dioxide requirements
FACILITY	6NYCRR 238-1.6 (c)	104	Authorization/responsibilities of the authorized account representative
FACILITY	6NYCRR 238-2.1	105	
FACILITY	6NYCRR 238-8	106	
FACILITY	6NYCRR 243-1.6 (a)	26	Permit Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (b)	27	Monitoring Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (c)	28	NOx Ozone Season Emission Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (d)	29	Excess Emission Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (e)	30	Recordkeeping and reporting requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-2.1	31	Authorization and responsibilities - CAIR Designated Representative Certificate of representation - CAIR Designated Representative
FACILITY	6NYCRR 243-2.4	32	General Requirements - Monitoring and Reporting
FACILITY	6NYCRR 243-8.1	33, 34	Quarterly reports re: recordkeeping and reporting - Monitoring and Reporting
FACILITY	6NYCRR 243-8.5 (d)	35	Compliance certification re: recordkeeping and reporting - Monitoring and Reporting
FACILITY	6NYCRR 243-8.5 (e)	36	CAIR NOx Ozone Annual Trading Program General Provisions
FACILITY	6NYCRR 244-1	37	



FACILITY	6NYCRR 244-2	38	CAIR Designated Representative for CAIR NOx Sources
FACILITY	6NYCRR 244-8	39	Monitoring and Reporting CAIR NOx Allowances
FACILITY	6NYCRR 245-1	40	CAIR SO2 Trading Program General Provisions
FACILITY	6NYCRR 245-2	41	CAIR Designated Representative for CAIR SO2 Sources
FACILITY	6NYCRR 245-8	42	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 201-5

This regulation applies to those permit terms and conditions which are not federally enforceable. It specifies the applicability criteria for state facility permits, the information to be included in all state facility permit applications as well as the permit content, terms of permit issuance, and sets guidelines for modifying state facility permits and allowing for operational flexibility. For permitting purposes, this rule specifies the need to list all emission units except those that are exempt or trivial pursuant to Subpart 201-3 in the permit application and provide a description of the emission unit's processes and products. Finally, this rule also provides the Department the authority to include this and any other information that it deems necessary to identify applicable Federal standards, recordkeeping and reporting requirements, and establish terms and conditions that will ensure compliance with the national ambient air quality standards.

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, FREEPORT POWER PLANT #2 has been determined to be subject to the following regulations:

40CFR 52-A.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

40CFR 60-A.12



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

40CFR 60-A.13

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

40CFR 60-A.14

This regulation defines the term modification and what is and is not considered to be a modification, for the purpose of rule applicability.

40CFR 60-A.15

This regulation defines the term reconstruction and what is and is not considered to be a reconstruction project, for the purpose of rule applicability.

40CFR 60-A.4

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

40CFR 60-A.7 (b)

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

40CFR 60-A.7 (c)

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

40CFR 60-A.7 (d)

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

40CFR 60-A.7 (f)

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

40CFR 60-A.9

This rule citation allows the public access to any information submitted to the EPA Administrator (or state contact), in conjunction with a project subject to this section of the regulation.

40CFR 60-GG.334 (h)

This regulation requires the applicant to monitor the sulfur content of the fuel oil being burned in the turbine.

40CFR 72

In order to reduce acid rain the the U.S. and Canada, Title IV of the Clean Air Act Amendments of 1990 requires the establishment of a program to reduce emissions of 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 where 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 201-7.2

This section of Part 201-7 specifies the criteria that need to be met in order to restrict emissions to avoid Title V or other applicable requirements using federally enforceable permit conditions permit.

6NYCRR 204-1.4

This condition limits the operation of the Curtiss-Wright turbine (unit 2-00004) during the ozone season in order to avoid the NO<sub>x</sub> Budget requirements of Part 204.

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 204-8.1

This condition lists the general requirements for the NO<sub>x</sub> 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 NO<sub>x</sub> Budget Program

6NYCRR 204-8.3

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

6NYCRR 204-8.4

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

6NYCRR 204-8.7

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

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 227-1.2 (a) (1)

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

6NYCRR 227-1.3 (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 227-2.4 (e) (1)

This condition subjects the Curtiss-Wright turbine to the NO<sub>x</sub> emission concentration limit of RACT (100 ppmvd corrected to 15% O<sub>2</sub>); during the ozone season.

6NYCRR 231-2

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

6NYCRR 231-2.6

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In the New York City metropolitan area, carbon monoxide is also a non-attainment contaminant. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

The requirements and criteria for creating and certifying emission reduction credits (ERCs) are set forth in section 231-2.6.

6NYCRR 237-1.6 (c)

This subdivision outlines the standard requirements of the Acid Deposition Reduction NO<sub>x</sub> Budget Trading Program for oxides of nitrogen.

6NYCRR 237-1.6 (e)

This requires the owners and operators of the NO<sub>x</sub> budget source and each NO<sub>x</sub> budget unit at the source to keep pertinent documents at the site for a period of 5 years; and lists which documents are pertinent.

6NYCRR 237-2

This condition requires the permittee to select and authorize one person to manage, and represent the owners of any NO<sub>x</sub> budget unit; and specifies the responsibilities of this NO<sub>x</sub> authorized account representative

6NYCRR 237-4.1

This item specifies the requirements of the compliance certification report.

6NYCRR 237-8

This item requires the owners and operators of a NO<sub>x</sub> budget unit to comply with the monitoring and reporting requirements of 6 NYCRR 237-8 and Subpart H of 40 CFR part 75; and allows NO<sub>x</sub> budget units which are also NO<sub>x</sub> budget units under 6 NYCRR Part 204 to be summarily referenced in order to demonstrate compliance with the requirements of this item.

6NYCRR 238-1.6 (a)

This condition requires the applicant to submit a SO<sub>2</sub> budget application for a permit and to operate in compliance with that permit.

6NYCRR 238-1.6 (c)

This Item requires the owners and operators of each SO<sub>2</sub> budget source and each SO<sub>2</sub> budget unit to hold SO<sub>2</sub> allowances available for compliance deductions under 6 NYCRR 238-6.5; and how such allowances will be managed.



6NYCRR 238-2.1

This section outlines the authorization and responsibilities of the SO<sub>2</sub> authorized account representative.

6NYCRR 238-8

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

6NYCRR 243-1.6 (a)

This condition requires the facility to acknowledge that they are subject to this CAIR regulation and provide owner and contact information. It also requires them to update this information as it changes or provide supplemental information at the Departments request.

6NYCRR 243-1.6 (b)

This condition obligates the owners and operators of the facility to comply with the monitoring and reporting requirements of the CAIR regulations.

6NYCRR 243-1.6 (c)

This citation explains the general provisions of the Clean Air Interstate Rule (CAIR) NO<sub>x</sub> Ozone Season Trading Program. This ozone season NO<sub>x</sub> 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<sub>x</sub> Ozone Season allowances that is not less than the total tons of NO<sub>x</sub> emissions for the ozone season.

6NYCRR 243-1.6 (d)

This citation for the Clean Air Interstate Rule (CAIR) NO<sub>x</sub> Ozone Season Trading Program explains some of the penalties that can be imposed on a CAIR NO<sub>x</sub> Ozone Season source that does not surrender enough CAIR NO<sub>x</sub> Ozone Season allowances to cover their NO<sub>x</sub> Ozone Season emissions.

6NYCRR 243-1.6 (e)

This citation for the Clean Air Interstate Rule (CAIR) NO<sub>x</sub> 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<sub>x</sub> Ozone Season Trading Program explains that an CAIR NO<sub>x</sub> Ozone Season designated representative must be selected to submit, sign and certify each submission on behalf of the source for the this program.

6NYCRR 243-2.4

This condition describes the required elements of the "Certificate of Representation" for the CAIR program and the certifying language required with submissions to the Department.

6NYCRR 243-8.1

This citation of the Clean Air Interstate Rule (CAIR) NO<sub>x</sub> Ozone Season Trading Program explains that CAIR NO<sub>x</sub> Ozone Season Trading Program sources must install, certify and operate monitoring systems the meet the monitoring, recordkeeping, and reporting requirements in Subpart 6 NYCRR 243-8 and in Subpart H of 40 CFR Part 75.

6NYCRR 243-8.5 (d)

This citation of the Clean Air Interstate Rule (CAIR) NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub>) Annual Trading Program. The control period for this annual NO<sub>x</sub> 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<sub>x</sub> allowances that is not less than the total tons of NO<sub>x</sub> emissions for the control period.

#### 6NYCRR 244-2

Each Clean Air Interstate Rule (CAIR) NO<sub>x</sub> source shall have one CAIR designated representative and may have one alternate representative. Each submission for the CAIR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> emission monitoring system must be used to measure NO<sub>x</sub> emissions. NO<sub>x</sub> 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 (SO<sub>2</sub>) Trading Program. The control period for this annual SO<sub>2</sub> 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 SO<sub>2</sub> allowances that is not less than the total tons of SO<sub>2</sub> emissions for the control period.

#### 6NYCRR 245-2

Each Clean Air Interstate Rule (CAIR) SO<sub>2</sub> source shall have one CAIR designated representative and may have one alternate representative. Each submission for the CAIR SO<sub>2</sub> Trading Program shall be submitted, signed, and certified by the CAIR designated representative or the alternate representative.

#### 6NYCRR 245-8

### **Compliance Certification**

Summary of monitoring activities at FREEPORT POWER PLANT #2:

<b>Location Facility/EU/EP/Process/ES</b>	<b>Cond No.</b>	<b>Type of Monitoring</b>
U-00005	82	record keeping/maintenance procedures
U-00005	107	continuous emission monitoring (cem)
U-00005	51	monitoring of process or control device parameters as surrogate
U-00005	52	monitoring of process or control device parameters as surrogate
U-00005	53	continuous emission monitoring (cem)
U-00005	54	work practice involving specific operations
U-00005/EP005/GAS	83	continuous emission monitoring (cem)
U-00005/EP005/GAS	84	intermittent emission testing
U-00005/EP005/GAS	85	continuous emission monitoring



Permit Review Report

Permit ID: 1-2820-00358/00002

Renewal Number: 1

05/20/2009

		(cem)
U-00005/EP005/GAS	86	continuous emission monitoring (cem)
U-00005/EP005/GAS	87	continuous emission monitoring (cem)
U-00005/EP005/GAS	88	continuous emission monitoring (cem)
U-00005/EP005/OIL	89	intermittent emission testing
U-00005/EP005/OIL	90	continuous emission monitoring (cem)
U-00005/EP005/OIL	91	continuous emission monitoring (cem)
U-00005/EP005/OIL	92	continuous emission monitoring (cem)
U-00005/EP005/OIL	93	continuous emission monitoring (cem)
U-00005/EP005/OIL	94	continuous emission monitoring (cem)
FACILITY	22	record keeping/maintenance procedures
FACILITY	23	record keeping/maintenance procedures
U-00005	55	monitoring of process or control device parameters as surrogate
U-00005	56	continuous emission monitoring (cem)
U-00005	57	work practice involving specific operations
U-00005	58	work practice involving specific operations
U-00005	59	continuous emission monitoring (cem)
FACILITY	5	record keeping/maintenance procedures
2-00004/00004/203/00004	50	work practice involving specific operations
U-00005	64	record keeping/maintenance procedures
U-00005	70	record keeping/maintenance procedures
U-00005	71	record keeping/maintenance procedures
2-00004/00004	49	work practice involving specific operations
2-00004/-/203/00004	47	intermittent emission testing
FACILITY	24	monitoring of process or control device parameters as surrogate
2-00004/-/203/00004	48	intermittent emission testing
FACILITY	98	record keeping/maintenance procedures
FACILITY	101	record keeping/maintenance procedures
FACILITY	102	record keeping/maintenance procedures
FACILITY	104	record keeping/maintenance procedures
FACILITY	39	record keeping/maintenance procedures
FACILITY	42	record keeping/maintenance procedures

**Basis for Monitoring**

**Basis For Monitoring:**

Particulate Limits for the existing Curtiss-Wright Turbine (Emission Unit 00004):

Paragraph 227.2(b) of the SIP-approved Part 227 limits particulate emissions from oil-fired



stationary combustion installations such as the existing turbine to 0.10 pounds per million Btu. As such, the particulate limits in this permit are set at 0.10 pounds per million Btu for the existing turbine's operation under 227.2(b)(1), and 227-1.2(a)(1) and 227.2(b)(1), respectively. The difference between the requirements of 227-1.2(a)(1) and 227.2(b) is in the averaging time for the standard. Part 227-1.2(a)(1) does not specify an averaging time for compliance while 227.2(b)(1) specifies a two hour averaging time. The averaging time for 227-1.2(a)(1) is generally assumed to be one hour since the EPA method used to determine compliance is based primarily on this time period. The 0.10 pounds per million Btu limit has been placed under both citations requiring compliance under the appropriate averaging times.

This turbine is stack tested to determine compliance with the particulate standards. The permittee will be required to monitor the rate of fuel flow into the turbine and is restricted to the highest flow measured during stack tests.

NOx Emissions limits for the Curtiss-Wright Turbine:

Part 227-2.4(e)(1)(ii) requires that NOx emissions not exceed 100 ppmvd corrected to 15% oxygen from combustion turbines. Stack testing conducted demonstrate compliance with this limit both under 201-6.5(e) which requires a means of determining compliance with applicable requirements and directly under paragraph 227-2.6(a)(7). The permittee will be required to monitor the rate of fuel flow into the turbine and is restricted to that highest flow measured during stack tests. If this unit cannot meet the above NOx limit, the permittee will be allowed to apply for a variance to this limit as provided for under subdivision 227-2.5(c) of the Department's regulations.

Emissions of NOx, NH3 and CO from the LM-6000 Turbine:

The facility is required to install continuous emissions monitors (CEMs) for ammonia, carbon monoxide, and oxides of nitrogen for the LM-6000 Turbine; which is required to meet the following limitations -

Natural gas firing:

NOx 2.5 ppmvd (corrected to 15% O2)  
NH3 10.0 ppmvd (corrected to 15% O2)

Distillate oil firing:

NOx 9.0 ppmvd (corrected to 15% O2)  
CO 18 ppmvd (corrected to 15% O2)  
NH3 10.0 ppmvd (corrected to 15% O2)

These limitations apply during steady state operation. Steady state is defined as the period of operation other than start-up or shutdown. The facility is limited to 20.3 tons per year of NOx



and 90 tons per year of CO. These limits were used to avoid applicability with both attainment and non-attainment new source review.

**Start-up and Shutdown Limitations:** The facility has specific limitations during periods of start-up and shutdown. During start-up the control equipment must be both "warmed" and "cycled" up to peak performance. Until the proper amount of exhaust flow has been achieved the control equipment is not operating at maximum efficiency. During shutdown the control equipment must be turned off prior to the gas turbine. The gas turbine can't be switched off immediately, it must be "cycled" down. During this "cycle down" period the amount of exhaust flow decreases to the point where the control equipment must be shutdown. However, the gas turbine must still fire a minimal amount of fuel for a brief period of time. Therefore, start-up is limited to a maximum of 30 minutes in duration, while shutdown is limited to a maximum of 20 minutes in duration. The facility is required to report quarterly the time of duration for each start-up and shutdown and the amount of NO<sub>x</sub> emitted during these periods. The facility is required to meet the following emission limitations during periods of start-up or shutdown:

Natural gas firing: NO<sub>x</sub> 15 pounds start-up, 5.0 lbs shutdown

Distillate oil firing: NO<sub>x</sub> 35 pounds start-up, 8.0 lbs shutdown

**Excess Emissions Requirements:** The facility is required to submit to the Department, quarterly reports of excess emissions of any pollutant. These reports include the duration of the exceedance, the amount of the exceedance, and the explanation for the exceedance.

**Particulates Emissions from the LM-6000 Turbine:**

The maximum hourly emissions for particulates is 45 lbs per hour when burning distillate oil and 5 lbs per hour when firing gas. To demonstrate compliance with these limits, testing is conducted using EPA-approved Method 5, and according to a protocol submitted by the permittee and approved by the Department. The permittee will be required to monitor the rate of fuel flow into the turbine and is restricted to that highest flow measured during stack tests. If this unit cannot meet the above NO<sub>x</sub> limit, the permittee will be allowed to apply for a variance to this limit as provided for under subdivision 227-2.5(c) of the Department's regulations.

**Fuel Sulfur Limit for the Curtiss-Wright turbine (Emission Unit 00004):**

Part 225 provides that the Department may require any facility owner or operator who purchases coal and/or oil to submit reports containing fuel analysis and purchase information, and maintain these records for at least three years. This requirement has been incorporated into the permit. Additionally, Section 225-1.2 sets a limit on the maximum fuel sulfur content for distillate fuels (such as #2 fuel oil) at 0.37% for the area in which this facility is located.



Fuel Sulfur Limit for the LM-6000:

Opacity: This applies to both the existing Curtiss-Wright turbine (Emission Unit 00004) and the LM-6000 (Emission Unit 00005) when burning oil.

Part 227-1.3(a) contains opacity limitations for internal combustion engines, boilers and turbines. This limit restricts the opacity of smoke from stacks for these operations from exceeding 20% on a six minute average basis except that the opacity may be allowed to up to 27% for one six minute block average period once per hour. For any source at this facility not covered by Part 227, the permit contains the requirements in Part 211, restricting opacity to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity. This requirement appears automatically in any Title V permit.

Continuous opacity monitors are not required for turbines of the size and/or type of equipment at this facility.

The other options for opacity monitoring under 227-1.3(b) include Method 9 observations or "considering other credible evidence." Method 9 observations are conducted by qualified observers who have been trained to quantify opacity by observing the plume and estimating the percent of light transmission being obscured being caused by the presence of smoke. These observations are typically done by certified Department and EPA staff, but can also be conducted by other trained and certified individuals. Recertification is required every six months. The testimony of qualified observers has been admitted routinely in enforcement cases in the past.

While Part 227 provides that Method 9 analyses are acceptable methods for determining compliance with the opacity standards for these units, the circumstances under which Method 9 analyses are required are not defined. The Department has developed a standard method that results in a consistent approach to determining compliance with the opacity requirements of Part 227 as well as other rules which contain an opacity limit. The approach requires that the facility owner look for the presence of visible emissions once per day. If visible emissions are detected two days in a row, a Method 9 observation must be done by a certified individual within two business days of the occurrence.

This method is more structured and routine than past treatment of opacity requirements in which problems may have occurred for some time before the Department became aware of them and sent a certified observer to document the violation. The approach in this permit allows the smoke condition to exist for only two days before a Method 9 analysis is necessary. It should be noted that the presence of visible emissions is not necessarily an indication that the opacity limit is being exceeded, only that it may need to be assessed by Method 9 if it persists for two days. Since the use of a continuous emissions monitor is not a requirement for this facility, and federal



regulations do not contain any further opacity monitoring requirements for units such as those at this facility, this has become the standard approach to monitoring opacity for operations such as this.

The placement of this requirement in this permit does not preclude the Department or the EPA from conducting a Method 9 observation when deemed to be necessary.

Finally, this approach has been used in many permits and has been found by the EPA under the Title V program to be an acceptable method for opacity monitoring for these situations.