

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-0608-00053/00019 Renewal Number: 1



04/16/2007

Facility Identification Data

Name: SAMUEL A CARLSON GENERATING STATION
Address: 136 STEELE ST
JAMESTOWN, NY 14701-6438

Owner/Firm

Name: JAMESTOWN BOARD OF PUBLIC UTILITIES
Address: 92 STEELE ST
PO BOX 700
JAMESTOWN, NY 14702-0700, USA
Owner Classification: Municipal

Permit Contacts

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Permit Description

Introduction

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

Summary Description of Proposed Project

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The current permit action is the issuance of a Title V operating permit for an existing facility that holds a Title V permit for the operation of four coal fired boilers, a combustion gas turbine with duct burners, coal, flyash, bottom ash and other material handling systems, and a small natural gas boiler.

The layout of this permit is different than the current permit because permit conditions that apply to more than one emission unit, emission point or emission source/control device have been included at the facility level of the permit and lists what emission unit, emission point or emission source/control device are subject to the condition. This is an attempt to reduce redundancy.

Replacements:

The NOx Budget rule, 6NYCRR Part 227-3 has expired and was replaced with NOx Budget rule, 6NYCRR Part 204, so Part 227-3 conditions have been replaced with Part 204 conditions which apply during the ozone season, May 1 to September 30.

Added:

Permit conditions were added for the Acid Deposition Reduction NOx Budget Trading Program requirements of 6NYCRR Part 237 during the non-ozone season, October 1 - April 30, and the Acid Deposition Reduction SO2 Budget Trading Program requirements of 6NYCRR Part 238. Conditions were added for the Compliance Assurance Monitoring rule, 40 CFR Part 64, for the particulate emissions from the coal boilers and the material handling systems.

A condition that limits the NOx emissions from the existing emission unit U-00004, coal boilers #10 and #11, was added to the permit to generate emission reduction credits that are earmarked to offset the NOx emissions from the proposed circulating fluidize bed (CFB) boiler project on site so the CFB project avoids the requirements of 40 CFR Part 52.21, "Prevention of Significant Deterioration of Air Quality" (PSD), and the requirements of the 6NYCRR Part 231-2, "New Source Review in Non-attainment Areas and Ozone Transport Regions," for NOx.

Removed:

Permit conditions from 40 CFR Part 60 subpart GG, NSPS for combustion Gas Turbines that required that the natural gas be monitored for sulfur content were removed as requested by the permittee and allowed by subpart GG.

Attainment Status

SAMUEL A CARLSON GENERATING STATION is located in the town of JAMESTOWN in the county of CHAUTAUQUA.

The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT

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Sulfur Dioxide (SO ₂)	ATTAINMENT
Ozone* ATTAINMENT)	TRANSPORT REGION (NON-
Oxides of Nitrogen (NO _x)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NO_x) which are ozone precursors.
** NO_x has a separate ambient air quality standard in addition to being an ozone precursor

Facility Description

JBPU Facility Description (Renewal 1, Modification 0)

The Samuel A. Carlson Steam Generating Station is owned and operated by the Jamestown Board of Public Utilities (JBPU), so it is a municipal electric power generating plant with applicable SIC code 4911 - Electrical Services. The facility is located at 136 Steele Street, in the City of Jamestown, Chautauqua County. The facility operates four pulverized bituminous coal-fired boilers, along with auxiliary coal and ash handling equipment, a natural combustion gas turbine with a natural gas duct burner and a heat recovery steam generator (HRSG), and a small natural gas boiler. The gas turbine can operate in simple or combined cycle. The coal boilers and HRSG provide steam through a common header which can feed either one or both of the steam turbine generators. The steam turbine generators are each rated at 24.5 megawatts.

The four coal boilers are divided into two emission units: emission unit U-00003 contains boilers # 9 and #12 (rated at 190 and 297 mmBtu/hr, respectively), which emit through cold side electrostatic precipitators to a single stack, emission point 00003 (North Stack). Emission unit U-00004 contains boilers #10 and # 11 (each rated at 190 mmBtu/hr), which emit through cold side electrostatic precipitators to a single stack, emission point 00004 (South Stack). The four emission points for the ash and coal handling systems are part of four emission units, U-00005, U-00006, U-00007 and U-00008. Each of these emission units is associated with one emission point.

The combustion gas turbine project involved the construction of two new emission units during years 2000 to 2001. Emission unit U-00020 consists of a GE LM6000 combustion gas turbine generator system and a Deltak heat recovery steam generator (HRSG). The JBPU installed a low pressure SPRINT (SPRay INTERcooling) system and an Enhanced Flow System (EFS) on the LM6000 gas turbine in 2005. This project did not trigger non-attainment new source review for either NO_x or VOC and it did not trigger PSD review for any applicable pollutant. The turbine is natural gas-fired (no fuel oil back-up) and has a nominal capacity of 43 MW at a heat input rate of 430 mmBtu/hr. The HRSG has a natural gas supplemental duct burner rated at approximately 144 mmBtu/hr heat input. During simple cycle operation heat from the gas turbine exhaust is not recovered and exhausts directly to emission point 00020. During combined cycle operation the duct burners add supplemental heat to the turbine exhaust, then the HRSG recovers heat from the exhaust and exhausts to emission point 00021. Steam generated in

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the HRSG is sent to the existing steam turbines to generate additional electricity; no new steam turbines were constructed as part of the project. Emission unit U-00022 is a 23.3 mmBtu/hr natural gas-fired boiler used to supply hot water to supplement district heating requirements. Normally, low pressure steam obtained from the existing power plant is used to meet the district heating needs.

The Air State Facility permit for the installation of a 750 kW emergency combustion gas turbine manufactured by Solar (Permit ID 9-0608-00053/00029) has also been incorporated into this permit. The emergency turbine will be able to supply electricity to the LM600 combustion gas turbine for starting up in emergency situations when electricity is not available from the grid. The emergency turbine only fires distillate oil and is subject to the sulfur in fuel standards of the New Source Performance standards (NSPS) for Gas Turbines, 40 CFR 60 subpart GG. As an emergency generator, this turbine is not subject to the nitrogen oxide requirements of subpart GG, or the NO_x RACT requirements of 6NYCRR Part 227-2, and will operate less than 500 hours per year.

The facility also operates a 830 brake-horsepower (bhp) Detroit Diesel Generator on an emergency basis. This is exempt from permitting per 6 NYCRR 201-3(c)(6) because its operation is limited to not more than 500 hours per year.

The diameter of the South Stack for emission unit U-00004 (boilers # 10 and # 11) permit application has been reduced from 120 inches to 84 inches by the addition of a cone that replaced the top five feet of the stack. This change, which was included in the Solar Turbine permit application, was made to stabilize the gas flow for stack testing purposes.

The BPU is proposing to generate 125.0 tons of NO_x emission reduction credits (ERC's) from the future permanent shutdown of emission unit U-00004 (boilers #10 and #11) prior to the completion of the shakedown period of the proposed Clean Coal Projects circulating fluidized bed (CFB) boiler. Once boilers #10 and #11 have been permanently shutdown, the BPU may request approval to re-duct the boiler #9 or boiler #12 exhaust gases from the emission point 00003 (north stack) to emission point 00004 (South Stack).

Permit Structure and Description of Operations

The Title V permit for SAMUEL A CARLSON 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

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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.

SAMUEL A CARLSON GENERATING STATION is defined by the following emission unit(s):

Emission unit U00004 - This emission unit was created for emission point 4. Two coal fired steam boilers (commonly known as boilers #10 and #11) emit to one common stack (EP 00004), also known as the South Stack. Both boilers are designated as large boilers; both have nominal heat input rates of 190 mmBtu/hr. The boilers primarily fire coal as described in process 002. However, distillate oil is used to bring the boilers up to temperature during start up and other conditions when necessary as described in process 008. Both boilers were retrofitted with low NOx burners to comply with the emission requirements of NOx RACT.

Emission unit 4 consists of emission point 00004 (the south stack), emission source/control 00007 (boiler #10), emission source 00009 (the electrostatic precipitator that serves boiler #10), emission source 0000A (boiler #11), and emission source/control 0000C (the electrostatic precipitator that serves boiler #11).

Emission unit U00004 is associated with the following emission points (EP):
00004

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

Process: 002 is located at OP FLOOR, Building SA CARLSON - Firing bituminous coal in two dry bottom, wall fired boilers (#10 and #11) that exhaust through one common stack (EP 00004).

Electrostatic precipitators control particulate emissions from each boiler. Both boilers are classified as large boilers.

Process: 008 is located at OP FLOOR, Building SA CARLSON - This process is for boiler startup using #2 fuel oil. Two dry bottom, wall fired boilers (#10 and #11) are operated and emit to one common stack. Each boiler has four burners which are ignited using #2 fuel oil upon startup of the boilers, each oil burner is rated at 5 mmBtu/hr.

Emission unit U00005 - This emission unit was created for emission point 5, which vents air displaced by flyash collected in one of two ash collection silos.

Emission unit U00005 is associated with the following emission points (EP):
00005

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

Process: 003 is located at OP FLOOR, Building SA CARLSON - Fly ash collected in the ESPs is pneumatically transported from the ESPs to one of two ash collection silos. Ash from the ESPs is collected in a receiver on top of the silo, which is then discharged via gravity into the silo. The air displaced by the ash is exhausted through a bag filter. The system operates approximately once every 2 minutes when the ash collection system is in operation. The system is operated about 5 hours per 8 hour shift.

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Emission unit U00006 - This emission unit was created for emission point 6, which vents air displaced by fly ash and bottom ash collected in one of two ash collection silos.

Emission unit U00006 is associated with the following emission points (EP):
00006

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

Process: 004 is located at OP FLOOR, Building SA CARLSON - Fly ash collected in the ESPs is pneumatically transported from the ESPs to one of two ash collection silos. Flyash and bottom ash are collected via the transport system in a receiver on top of the silo, which is then discharged via gravity into the silo. The air displaced by the ash is exhausted through a bag filter. The system operates approximately once every 2 minutes when the ash collection system is in operation. The system is operated about 3 hour per 8 hour shift.

Emission unit U00007 - This emission unit was created for emission point 7, which exhausts the transport air of the pneumatic ash handling system. This transport system services all the ESP collection hoppers.

Emission unit U00007 is associated with the following emission points (EP):
00007

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

Process: 005 is located at OP FLOOR, Building SA CARLSON - The ash handling system collects flyash from the ESPs and pneumatically transports it to the ash collection silos. The pneumatic transport air is exhausted out emission point 00007 through a bag filter. The cleaned air from the bag filter is drawn through a mechanical exhauster (fan) and then discharged to the atmosphere.

Emission unit U00008 - This emission unit was created for emission point 8, which ventilates the coal conveying system to keep dust levels down throughout the conveyor system. Air displaced by coal in the coal silo enters the conveyor system and is exhausted through emission point 8.

Emission unit U00008 is associated with the following emission points (EP):
00008

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

Process: 006 is located at OP FLOOR, Building SA CARLSON - Coal is transported on a conveyor system through the plant. Air displaced by coal in the coal silo enters the conveyor system, where the air in the conveyor corridors is collected, filtered through a bagfilter and exhausted out emission point 8. When the bag collectors are intermittently cleaned with a compressed air pulse jet, the collected coal dust is discharged to the coal bunker for use.

Emission unit U00020 - This emission unit consists of a GE LM6000 gas turbine generator system and a Deltak heat recovery steam generator (HRSG). The turbine is natural gas-fired and has a nominal capacity of 43 MW at a heat input of 410 mmBtu/hr (HHV). The HRSG has natural gas supplemental firing (duct burners) rated at approximately 144 mmBtu/hr. During simple cycle operation, the turbine exhausts directly to EP 00020. During combined cycle operation, the turbine exhausts through the HRSG to EP 00021.

A low pressure SPRINT (SPRay INTercooling) system and an Enhanced Flow System (ESF) was installed on the LM6000 gas turbine in 2005. The project did not trigger nonattainment new source review for either NOx or VOC and it did not trigger PSD review for any applicable pollutant. The changes caused by this project have been incorporated into the May 2006 Title V renewal permit

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application as directed by the Department in a June 18, 2005 letter.

Emission unit U00020 is associated with the following emission points (EP):
00020, 00021

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

Process: DB1 is located at GROUND, Building SA CARLSON - This process is the exclusive firing of the duct burner using natural gas. (This process is not actually possible since the duct burner cannot fire without the turbine. The process was defined because 40 CFR 60 subpart Db applies to the duct burner only.)

Process: GT1 is located at GROUND, Building SA CARLSON - This process is a GE LM6000 gas turbine and Deltak HRSG with supplemental firing of a duct burner, with both the turbine and duct burner firing natural gas. This is combined cycle operation. NOx from the turbine is controlled by water injection.

Process: GT2 is located at GROUND, Building SA CARLSON - This process is the GE LM6000 gas turbine only, firing natural gas. NOx from the turbine is controlled by water injection. The duct burner is not operating, and the exhaust gas does not go through the HRSG. This is simple cycle operation.

Emission unit U00022 - This emission unit consists of a 23.3 mmBtu/hr natural gas-fired boiler manufactured by Cleaver Brooks. This boiler supplements the district heating requirements. This boiler emits to EP 00022.

Emission unit U00022 is associated with the following emission points (EP):
00022

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

Process: 010 is located at GROUND, Building SA CARLSON - This process is a 23.3 mmBtu/hr boiler firing natural gas.

Emission unit U00023 - This emission unit consists of a 750 kW emergency backup Solar combustion gas turbine generator set to provide black start capability for the LM6000 combustion gas turbine. This turbine will fire only distillate oil and will operate only when the primary power source at the SA Carlson station has been rendered inoperable by an emergency situation and for weekly testing. Operations will be limited to 500 hours per year. The turbine exhausts to EP 00023.

Emission unit U00023 is associated with the following emission points (EP):
00023

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

Process: ET1 is located at Building SA CARLSON - A 750 kW emergency backup combustion gas turbine to provide black start capability for the LM6000 combustion gas turbine. This turbine will fire only distillate oil and will operate only when the primary power source at the SA Carlson station has been rendered inoperable by an emergency situation and for weekly testing. Operations will be limited to 500 hours per year.

Emission unit U00003 - This emission unit was created for emission point 3. Two coal fired steam boilers (commonly known as boilers #9 and #12) emit to one common stack (EP 00003), also known as the North Stack. Boiler #9, designated as a large boiler, has a nominal heat input rate of 190 mmBtu/hr. Boiler #12, designated as a very large boiler, has a nominal heat input rate of 297 mmBtu/hr. The boilers primarily fire coal as described in process 001. However, distillate oil is used to bring the boilers up to temperature during startup and other conditions when necessary, as described in process 007. Both boilers were retrofitted with low NOx burners to comply with the emission requirements of NOx RACT.

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Emission unit 3 consists of emission point 00003 (the north stack), emission source 00001 (boiler #9), emission source/control 00003 (the electrostatic precipitator that serves boiler #9), emission source 00004 (boiler #12), and emission source/control 00006 (the electrostatic precipitator that serves boiler #12).

Emission unit U00003 is associated with the following emission points (EP):
00003

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

Process: 001 is located at OP FLOOR, Building SA CARLSON - Firing bituminous coal in two dry bottom, wall fired boilers (#9 and #12) that exhaust through one common stack (EP 00003, north stack). Electrostatic precipitators control particulate emissions from each boiler. One boiler (#9) is classified as a large boiler, the other boiler is classified as a very large boiler (#12).

Process: 007 is located at OP FLOOR, Building SA CARLSON - This process is for boiler startup using #2 fuel oil. Two dry bottom, wall fired boilers (#9 and #12) are operated and emit to one common stack. Each boiler has four burners which are ignited using #2 fuel oil upon boiler startup, each oil burner is rated at 5 mmBtu/hr.

Title V/Major Source Status

SAMUEL A CARLSON GENERATING STATION is subject to Title V requirements. This determination is based on the following information:

This is a major facility because it actually emits more than 100 tons per year (tpy) of sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, and particulate matter less than 10 microns in aerodynamic diameter (PM-10). The actual emissions of hazardous air pollutants is greater than the major facility threshold of 25 tpy.

Program Applicability

The following chart summarizes the applicability of SAMUEL A CARLSON GENERATING STATION 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

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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

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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 out of compliance with specific requirements (see attached compliance schedule)

Compliance Schedule:

Location	Short Description	Regulation
Facility/EU/EP/Process/ES FACILITY	Smoke Emission Limitations.	6NYCRR 227-1.3(a)

Compliance Discussion:

SAMUEL A CARLSON GENERATING STATION is in violations of the following requirement(s): The Jamestown Board of Public Utilities, Samuel A. Carlson Generating Station is operating under a consent order signed on July 11, 2001 for excess opacity. The order requires periodic maintenance, inspections, quality control/quality assurance measures, quarterly reporting, an annual root cause analysis, and penalties for excess opacity. Even though excess opacity has decreased, Schedule A of the order, the Opacity Reduction schedule is included in the permit. The permit condition does not include the items that have been completed.

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

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SCC or Source Classification Code is a code developed and used by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code	Description
1-01-002-02	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - BITUMINOUS COAL PULVERIZED COAL: DRY BOTTOM (BITUMINOUS COAL)
1-01-005-01	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - DISTILLATE OIL Grades 1 and 2 Oil
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
2-01-001-01	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) Turbine
2-02-002-03	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION ENGINE - NATURAL GAS Turbine: Cogeneration
3-99-999-94	MISCELLANEOUS MANUFACTURING INDUSTRIES MISCELLANEOUS INDUSTRIAL PROCESSES Other Not Classified

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 hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

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Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
007440-38-2	ARSENIC (HAP)	> 0	but < 10 tpy
000071-43-2	BENZENE (HAP)	> 0	but < 10 tpy
000106-46-7	BENZENE, 1,4-DICHLORO- (HAP)	> 0	but < 10 tpy
007440-41-7	BERYLLIUM (HAP)	> 0	but < 10 tpy
007440-43-9	CADMIUM (HAP)	> 0	but < 10 tpy
000630-08-0	CARBON MONOXIDE	>= 50	tpy but < 100 tpy
007782-50-5	CHLORINE (HAP)	> 0	but < 10 tpy
007440-47-3	CHROMIUM (HAP)	> 0	but < 10 tpy
007440-48-4	COBALT (HAP)	> 0	but < 10 tpy
000050-00-0	FORMALDEHYDE (HAP)	> 0	but < 10 tpy
0NY100-00-0	HAP	>= 25	tpy but < 40 tpy
000110-54-3	HEXANE (HAP)	> 0	but < 10 tpy
007439-92-1	LEAD (HAP)	> 0	but < 10 tpy
007439-96-5	MANGANESE (HAP)	> 0	but < 10 tpy
007439-97-6	MERCURY (HAP)	> 0	but < 10 tpy
000091-20-3	NAPHTHALENE (HAP)	> 0	but < 10 tpy
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS (HAP)	> 0	but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN	>= 250	tpy
0NY075-00-0	PARTICULATES	>= 250	tpy
0NY075-00-5	PM-10	>= 250	tpy
130498-29-2	POLYCYCLIC AROMATIC HYDROCARBONS (HAP)	> 0	but < 10 tpy
007782-49-2	SELENIUM (HAP)	> 0	but < 10 tpy
007446-09-5	SULFUR DIOXIDE	>= 250	tpy
000108-88-3	TOLUENE (HAP)	> 0	but < 10 tpy
0NY998-00-0	VOC	>= 10	tpy but < 25 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

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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)

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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

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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.

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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.

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

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Short Description	Condition
FACILITY	ECL 19-0301	Powers and Duties of the Department with respect to air pollution control	98
U-00004	40CFR 52-A.21	Prevention of Significant Deterioration	72
U-00020	40CFR 52-A.21	Prevention of Significant Deterioration	79, 80,
U-00022	40CFR 52-A.21	Prevention of Significant Deterioration	81, 82,
FACILITY	40CFR 60-A	General provisions	90, 91,
FACILITY	40CFR 60-A.11 (d)	General provisions - compliance with standards and maintenance requirements	92
FACILITY	40CFR 60-A.12	General provisions - Circumvention	52
FACILITY	40CFR 60-A.13 (a)	General provisions - Monitoring requirements	56
FACILITY	40CFR 60-A.13 (d)	General provisions - Monitoring requirements	57
FACILITY	40CFR 60-A.13 (e)	General provisions - Monitoring requirements	58
FACILITY	40CFR 60-A.13 (h)	General provisions - Monitoring requirements	59
FACILITY	40CFR 60-A.4	General provisions - Address	60
FACILITY	40CFR 60-A.7 (b)	Notification and Recordkeeping	61
FACILITY	40CFR 60-A.7 (f)	Notification and Recordkeeping	53
U-00020/-/DB1	40CFR 60-Db.44b(1) (1)	Standards for Nitrogen Oxides (firing coal, oil, natural gas or a mixture of all).	54
U-00020/-/DB1	40CFR 60-Db.49b(d)	Reporting and Recordkeeping Requirements.	55
U-00022	40CFR 60-Dc.48c(g)	Reporting and Recordkeeping Requirements.	76
U-00023	40CFR 60-GG.332	Standard for Nitrogen Oxides for Gas Turbines > 100 mmBtu/hr	87
			94
			95



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U-00020	40CFR 60-GG.332(a)(1)	Standard for Oxides of nitrogen for Gas Turbines > 100 mmBTU/hr	84
U-00020	40CFR 60-GG.332(f)	Exemption from Section 332(a) of this Subpart.	85
U-00023	40CFR 60-GG.333(b)	Standard for Sulfur Dioxide	97
U-00008	40CFR 60-Y	Standards of Performance for Coal Preparation Plants	78
FACILITY	40CFR 64	COMPLIANCE ASSURANCE MONITORING	62
U-00003/00003	40CFR 64	COMPLIANCE ASSURANCE MONITORING	68
U-00004/00004	40CFR 64	COMPLIANCE ASSURANCE MONITORING	74
FACILITY	40CFR 64.8	CAM - Quality improvement plan (QIP) requirements	63
FACILITY	40CFR 68	Chemical accident prevention provisions	20
FACILITY	40CFR 72	Permits regulation	64
FACILITY	40CFR 82-F	Protection of Stratospheric Ozone - recycling and emissions reduction	21
FACILITY	6NYCRR 200.6	Acceptable ambient air quality.	1
FACILITY	6NYCRR 200.7	Maintenance of equipment.	10
FACILITY	6NYCRR 201-1.4	Unavoidable noncompliance and violations	99
FACILITY	6NYCRR 201-1.7	Recycling and Salvage	11
FACILITY	6NYCRR 201-1.8	Prohibition of reintroduction of collected contaminants to the air	22
FACILITY	6NYCRR 201-3.2(a)	Exempt Activities - Proof of eligibility	12
FACILITY	6NYCRR 201-3.2(b)	Exempt Activities - maintenance of control equipment	23
FACILITY	6NYCRR 201-3.3(a)	Trivial Activities - proof of eligibility	13
FACILITY	6NYCRR 201-3.3(b)	Trivial Activities - maintenance of control equipment	24
FACILITY	6NYCRR 201-6	Title V Permits and the Associated Permit Conditions	25, 65, 66
FACILITY	6NYCRR 201-6.5(a)(4)	General conditions	14
FACILITY	6NYCRR 201-6.5(a)(7)	General conditions	
Fees 2			
FACILITY	6NYCRR 201-6.5(a)(8)	General conditions	15
FACILITY	6NYCRR 201-6.5(c)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	3
FACILITY	6NYCRR 201-6.5(c)(2)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	4
FACILITY	6NYCRR 201-6.5(c)(3)(ii)	Permit conditions for Recordkeeping and Reporting of Compliance	5

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FACILITY	6NYCRR 201-6.5(d)(5)	Compliance schedules	16
FACILITY	6NYCRR 201-6.5(e)	Compliance Certification	6
FACILITY	6NYCRR 201-6.5(f)(6)	Off Permit Changes	17
FACILITY	6NYCRR 201-7	Federally Enforceable Emissions Caps	67
U-00004	6NYCRR 201-7	Federally Enforceable Emissions Caps	72, 73
U-00020	6NYCRR 201-7	Federally Enforceable Emissions Caps	79, 80, 81, 82
U-00022	6NYCRR 201-7	Federally Enforceable Emissions Caps	90, 91, 92
U-00023	6NYCRR 201-7	Federally Enforceable Emissions Caps	95
FACILITY	6NYCRR 202-1.1	Required emissions tests.	18
FACILITY	6NYCRR 202-1.2	Notification.	26
FACILITY	6NYCRR 202-1.3	Acceptable procedures.	27, 28, 29
FACILITY	6NYCRR 202-1.4	Separate emission tests by the commissioner.	30
FACILITY	6NYCRR 202-1.5	Prohibitions.	31
FACILITY	6NYCRR 202-2.1	Emission Statements - Applicability	7
FACILITY	6NYCRR 202-2.5	Emission Statements - record keeping requirements.	8
FACILITY	6NYCRR 204-1.6	Standard Requirements	32
FACILITY	6NYCRR 204-2.1	Authorization and Responsibilities of the NOx Authorized Account Representative	33
FACILITY	6NYCRR 204-4.1	Compliance Certification Report	34
FACILITY	6NYCRR 204-7.1	Submission of NOx Allowance Transfers	35
FACILITY	6NYCRR 204-8.1	General Requirements	36
FACILITY	6NYCRR 204-8.2	Initial Certification and Recertification Procedures	37
FACILITY	6NYCRR 204-8.3	Out of Control Periods	38
FACILITY	6NYCRR 204-8.4	Notifications	39
FACILITY	6NYCRR 204-8.5	Recordkeeping and Reporting	40
FACILITY	6NYCRR 204-8.7	Additional Requirements to Provide Heat Input Data for Allocations Purposes	41
FACILITY	6NYCRR 211.2	General Prohibitions - air pollution prohibited.	100, 101
FACILITY	6NYCRR 211.3	General Prohibitions - visible emissions limited	19
FACILITY	6NYCRR 212.6(a)	General Process Emission Sources - opacity of emissions limited	42
FACILITY	6NYCRR 215	Open Fires	9
FACILITY	6NYCRR 225-1.2(a)(2)	Sulfur in Fuel Limitations Post 12/31/87.	43, 44, 102, 103
FACILITY	6NYCRR 225-1.2(c)	Sulfur-in-fuel limitations - Table 1	45
FACILITY	6NYCRR 227-1.2(a)(1)	Particulate Emissions	46

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		from Liquid Fuels.	
U-00003/00003/001	6NYCRR 227-1.2(a)(4)	Particulate Emissions	69
		Firing Solid Fuels.	
U-00004/00004/002	6NYCRR 227-1.2(a)(4)	Particulate Emissions	75
		Firing Solid Fuels.	
FACILITY	6NYCRR 227-1.3(a)	Smoke Emission	47, 48,
		Limitations.	49, 50
FACILITY	6NYCRR 227-1.4(a)	Stack Monitoring. (see	104
		narrative)	
FACILITY	6NYCRR 227-1.4(b)	Stack Monitoring	51
U-00003/00003/001/00004	6NYCRR 227-2.4(a)(1)	Control requirements for	71
		very large boilers.	
U-00003/00003/001/00001	6NYCRR 227-2.4(b)(1)	Control Requirements for	70
		large boilers which are	
		not case by case.	
U-00004/00004/002/00007	6NYCRR 227-2.4(b)(1)	Control Requirements for	76
		large boilers which are	
		not case by case.	
U-00004/00004/002/0000A	6NYCRR 227-2.4(b)(1)	Control Requirements for	77
		large boilers which are	
		not case by case.	
U-00022	6NYCRR 227-2.4(d)	RACT for Oxides of	93
		Nitrogen - small	
		boilers.	
U-00020/-/GT2	6NYCRR 227-2.4(e)(1)(i)	RACT requirements for	89
		Simple cycle and	
		regenerative combustions	
		turbines firing gas	
		only.	
U-00023	6NYCRR 227-2.4(e)(1)(ii)	RACT requirements for	96
		Simple cycle and	
		regenerative combustions	
		turbines firing multiple	
		fuels.	
U-00020/-/GT1	6NYCRR 227-2.4(e)(2)(i)	RACT requirements for gas	88
		fired combined cycle	
		combustion turbines.	
U-00004	6NYCRR 231-2	New Source Review in	73
		Nonattainment Areas and	
		Ozone Transport Region	
U-00004	6NYCRR 231-2.2(a)(4)	Applicability	72, 73
U-00020	6NYCRR 231-2.2(a)(4)	Applicability	79
U-00022	6NYCRR 231-2.2(a)(4)	Applicability	90
U-00020	6NYCRR 231-2.4(a)(1)	Permit Requirements	83
FACILITY	6NYCRR 237-1.6(c)	Nitrogen oxides	105
		requirements	
FACILITY	6NYCRR 237-1.6(e)	Recordkeeping and	106
		reporting requirements	
FACILITY	6NYCRR 237-2	NOx Authorized account	107
		representative for NOx	
		budget sources	
FACILITY	6NYCRR 237-4.1	Compliance certification	108
		report.	
FACILITY	6NYCRR 237-7.1	Submission of NOx	109
		allowance transfers	
FACILITY	6NYCRR 237-8	MONITORING AND	110
		REPORTING	
FACILITY	6NYCRR 238-1.6(c)	Sulfur Dioxide	111
		requirements	
FACILITY	6NYCRR 238-1.6(e)	Recordkeeping and	112
		Reporting Requirements	
FACILITY	6NYCRR 238-2.1	Authorization/responsibil	113
		ities of the authorized	

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FACILITY	6NYCRR 238-4.1	account representative	
		Compliance certification	114
		report	
FACILITY	6NYCRR 238-7.1	Submission of SO2	115
		allowance transfers	
FACILITY	6NYCRR 238-8	Monitoring and Reporting	116

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

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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

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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

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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, SAMUEL A CARLSON GENERATING STATION has been determined to be subject to the following regulations:

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40CFR 52-A.21

This permit contains a new capping condition on coal boilers 10 and 11 (EU U-00004) which limits their NOx emissions to zero tons. This will create 125 tons of emission reduction credits that the permittee will use to offset the NOx emissions from the proposed 500 mmBtu/hr circulating fluidized bed (CFB) boiler in a netting demonstration. This will allow the CFB project to avoid the PSD and 6NYCRR 231-2, New Source Review in Non-attainment Areas and Ozone Transport Regions NOx requirements. This limit becomes effective the day the CFB boiler project (Air State Facility Permit Id. 9-0608-00053/00030) commences operation, where "commence operation" allows for a shakedown period not to exceed 180 days as defined in 6 NYCRR section 231-2.1.

This citation applies to facilities that are subject to the Prevention of Significant Deterioration (PSD) provisions in 40 CFR Part 52.21; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i). The permittee has limited emissions from the combustion gas turbine (CGT, emission unit (EU) U-00020), the small gas boiler (EU U-00022), and coal boilers 10 and 11 (EU U-00004) to avoid the requirements of PSD on the CGT when it was constructed. The limits continue to apply.

40CFR 60-A

This regulation contains the General Provisions of 40 CFR 60. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements

40CFR 60-A.11 (d)

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

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 (a)

This regulation specifies that all New Source Performance Standard (NSPS) affected sources that are required to have continuous monitoring systems (CMS) are subject to the requirements of Appendix B of 40 CFR Part 60 and if the CMS is used to demonstrate compliance with emission limits on a continuous basis, then it is also subject to Appendix F of 40 CFR Part 60.

40CFR 60-A.13 (d)

This regulation contains the requirements for daily drift testing for continuous monitoring systems required by 40 CFR Part 60.

40CFR 60-A.13 (e)

This regulation specifies minimum frequency of operation requirements for continuous monitoring systems required by 40 CFR Part 60.

40CFR 60-A.13 (h)

This regulation specifies the data averaging requirements for continuous monitoring systems subject to 40

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CFR Part 60.

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 (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-Db.44b (l) (1)

This regulation limits the nitrogen oxide (NO_x) emissions from the duct burner associated with the combustion gas turbine. The combined emissions from the CGT and the duct burner are measured with a continuous emission monitoring system to determine compliance.

40CFR 60-Db.49b (d)

This subdivision requires reporting and recordkeeping for affected steam generating units - annual fuel capacity factors. The permittee does not have an annual capacity factor limit.

40CFR 60-Dc.48c (g)

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

40CFR 60-GG.332

This section provides the equations to calculate the nitrogen oxide (NO_x) emission limits for combustion gas turbines (CGT's).

40CFR 60-GG.332 (a) (1)

This section provides the equations to calculate the allowable emissions of oxides of nitrogen (NO_x) from a gas turbine with a heat input greater than 100 million Btu per hour.

40CFR 60-GG.332 (f)

This regulation allows gas turbines using water or steam injection to control NO_x to be exempt from section 332.a when ice fog is deemed a traffic hazard.

40CFR 60-GG.333 (b)

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

40CFR 60-Y

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This regulation applies to the coal handling operations and sets an opacity limit to minimize particulate emissions.

40CFR 64

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

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

Only the particulate emissions from the coal boilers, and the four material handling emission units are subject to CAM. Monitoring conditions for all these emission units are included in the permit.

40CFR 64 .8

A Compliance Assurance Monitoring (CAM) permit condition may require a Quality Improvement Plan (QIP) if there are significant excursions of the monitored parameters. This permit condition lists the elements of a QIP.

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 SO₂ and NO_x (sulfur dioxide and oxides of nitrogen). Fossil fuel burning electric utility companies are a major source of these contaminants in the US. These sources were regulated in a phased approach. Phase I, which began in 1995, requires 110 of the higher-emitting utility plants in the eastern and Midwest states to meet intermediate SO₂ emission limitations. Phase II, which began in 2000, tightens the emission limitations and expands the coverage to most fossil fuel burning utilities. The utilities are given "allowances" which is a limited authorization to emit one ton of SO₂. The utilities are required to limit SO₂ emissions to the number of allowances they hold. Some can benefit however by reducing their emissions and selling their excess allowances. Part 72 contains the means of implementing this portion of Title IV of the Clean Air Act. An Acid Rain Renewal Permit will be issued at the same time as this Title V permit but it is a separate document.

6NYCRR 201-3.2 (b)

The owner and/or operator of any emission source or unit that is eligible to be exempt on the basis of the use of appropriate emission control devices shall operate and maintain such devices in a manner consistent with good engineering practices. Failure to do so constitutes a violation of this Part.

6NYCRR 201-3.3 (b)

The owner and/or operator of any emission source or unit that is eligible to be considered as a trivial source on the basis of the use of appropriate emission control devices shall operate and maintain such

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devices in a manner consistent with good engineering practices. Failure to do so constitutes a violation of this Part.

6NYCRR 201-7

This regulation sets forth federally enforceable emission limits (caps) that cannot be exceeded by the facility. Emissions are capped for two different projects in this permit, one is for the proposed construction of a circulating fluidized bed (CFB) boiler and the second was for the combustion gas turbine that was constructed during 2000/2001.

This permit contains a new capping condition on coal boilers 10 and 11 (EU U-00004) which limits their NOx emissions to zero tons. This will create 125 tons of emission reduction credits that the permittee will use to offset the NOx emissions from the proposed 500 mmBtu/hr circulating fluidized bed (CFB) boiler in a netting demonstration. This will allow the CFB project to avoid the PSD and 6NYCRR 231-2, New Source Review in Non-attainment Areas and Ozone Transport Regions NOx requirements. This limit becomes effective the day the CFB boiler project (Air State Facility Permit Id. 9-0608-00053/00030) commences operation, where "commence operation" allows for a shakedown period not to exceed 180 days as defined in 6 NYCRR section 231-2.1.

Emissions were capped when the combustion gas turbine was constructed in year 2000/2001 so that it would not be subject to the In this permit that cap is This citation applies to facilities that are subject to the Prevention of Significant Deterioration (PSD) provisions in 40 CFR Part 52.21; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i). The permittee has limited emissions from the combustion gas turbine (CGT, emission unit (EU) U-00020), the small gas boiler (EU U-00022), and coal boilers 10 and 11 (EU U-00004) to avoid the requirements of PSD on the CGT when it was constructed. The limits continue to apply.

6NYCRR 202-1.2

This regulation specifies that the department is to be notified at least 30 days in advance of any required stack test. The notification is to include a list of the procedures to be used that are acceptable to the department. Finally, free access to observe the stack test is to be provided to the department's representative.

6NYCRR 202-1.3

This regulation requires that any emission testing, sampling and analytical determination used to determine compliance must use methods acceptable to the department. Acceptable test methods may include but are not limited to the reference methods found in 40 CFR Part 60 appendix A and Part 61, appendix B. Alternate methods may also be used provided they are determined to be acceptable by the department. Finally, unless otherwise specified, all emission test reports must be submitted within 60 days after completion of testing.

6NYCRR 202-1.4

This regulation allows the department discretion to conduct separate or additional emission tests, including preparation of the testing site, at the source owner's expense, to determine compliance.

6NYCRR 202-1.5

This rule prohibits the concealment of an emission by the use of air or other gaseous diluents (diluting

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agents) to achieve compliance with an emission standard which is based on the concentration of a contaminant in the gases emitted through a stack.

6NYCRR 204-1.6

This condition requires the designated representative of the permittee to make submissions for the NOx 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 NOx Budget Trading Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

6NYCRR 204-4.1

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

6NYCRR 204-7.1

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

6NYCRR 204-8.1

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

6NYCRR 204-8.2

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

6NYCRR 204-8.3

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

6NYCRR 204-8.4

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

6NYCRR 204-8.5

This citation explains the record keeping and reporting requirements for the general provisions, monitoring plans, certification applications and quarterly reports.

6NYCRR 204-8.7

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

6NYCRR 212.6 (a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all

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process emission sources.

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 225-1.2 (c)

The sulfur-in-fuel limitations for residual and distillate oil and for solid fuel are listed in Tables 1,2 and 3 or 6 NYCRR Part 225-1.2(c), (d) and (e).

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 227-1.2 (a) (4)

This regulation establishes a particulate emission limit in terms of lbs per mmBtu of heat input for stationary combustion units which fire solid fuels at variable sizes of heat input (mmBtu/hr).

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 227-1.4 (a)

Subdivisions (a) and (f) of this section (227-1.4) have not been approved by EPA and have not been included in the NYS SIP. However, this citation requires the installation of a continuous opacity monitor for sources larger than 250 mmBtu/hr.

6NYCRR 227-1.4 (b)

This regulation requires the specific contents of excess emissions reports for opacity from facilities that employ continuous opacity monitors (COMs).

6NYCRR 227-2.4 (a) (1)

This citation lists the nitrogen oxide (NOx) reasonably available control technology (RACT) emission limits for very large boilers, > 250 mmBtu input/hr.

6NYCRR 227-2.4 (b) (1)

This paragraph provides a nitrogen oxide (NOx) reasonably available control technology (RACT) emission limits for large boilers, 100 to 250 mmBtu input/hr.

6NYCRR 227-2.4 (d)

This rule specifies that the nitrogen oxide (NOx) reasonably available control technology (RACT) requirement for small boilers (< or = 50 million Btu input/hr) is an annual tune-up.

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

NOx emissions from simple cycle combustion turbines that are only designed to burn gas must not exceed 50 ppmvd, corrected to 15% oxygen. For units with a duct burner, compliance will be based on the combination of the turbine and the duct burner emissions when both fire, and the turbine alone when not duct firing.

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

NOx emissions from simple cycle combustion turbines capable of firing multiple fuels, not just natural gas, must not exceed 100 ppmvd, corrected to 15% oxygen.

6NYCRR 227-2.4 (e) (2) (i)

This regulation limits nitrogen oxide (NOx) emissions from combined cycle combustion gas turbines to no more than 42 ppmvd, corrected to 15% oxygen, when firing natural gas. For units with a duct burner, compliance will be based on the combination of the turbine and the duct burner emissions when both fire, and the turbine alone when not duct firing.

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.

This permit contains a new capping condition on coal boilers 10 and 11 (EU U-00004) which limits their NOx emissions to zero tons. This will create 125 tons of emission reduction credits that the permittee will use to offset the NOx emissions from the proposed 500 mmBtu/hr circulating fluidized bed (CFB) boiler in a netting demonstration. This will allow the CFB project to avoid the PSD and 6NYCRR 231-2, New Source Review in Non-attainment Areas and Ozone Transport Regions NOx requirements. This limit becomes effective the day the CFB boiler project (Air State Facility Permit Id. 9-0608-00053/00030) commences operation, where "commence operation" allows for a shakedown period not to exceed 180 days as defined in 6 NYCRR section 231-2.1.

This citation applies to facilities that are subject to the Prevention of Significant Deterioration (PSD) provisions in 40 CFR Part 52.21; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i). The permittee has limited emissions from the combustion gas turbine (CGT, emission unit (EU) U-00020), the small gas boiler (EU U-00022), and coal boilers 10 and 11 (EU U-00004) to avoid the requirements of PSD on the CGT when it was constructed. The limits continue to apply.

6NYCRR 231-2.2 (a) (4)

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. The purpose of Section 231-2.2 is to define what new or modified facilities are subject to the requirements set forth in the other sections of this rule. This citation is included here because it is one of the citations the permittee avoided by limiting emissions with federally enforceable permit condition(s).

6NYCRR 231-2.4 (a) (1)

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

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ozone transport region and because there are ozone non-attainment areas within the state. The permitting requirements for proposed source projects and new major facilities are set forth in section 231-2.4. This citation was listed here because it was avoided by limiting emissions through a Federally Enforceable permit condition(s).

6NYCRR 237-1.6 (c)

This subdivision outlines the standard requirements of the Acid Deposition Reduction NOx Budget Trading Program for oxides of nitrogen.

6NYCRR 237-1.6 (e)

This requires the owners and operators of the NOx budget source and each NOx 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 NOx budget unit; and specifies the responsibilities of this NOx authorized account representative

6NYCRR 237-4.1

This item specifies the requirements for a compliance certification report.

6NYCRR 237-7.1

This item specifies what information and actions are necessary in order to record the transfer of NOx allowances.

6NYCRR 237-8

This item requires the owners and operators of a NOx budget unit to comply with the monitoring and reporting requirements of NYCRR 237-8 and Subpart H of 40 CFR part 75; and allows NOx budget units which are also NOx budget units under NYCRR Part 204 to be summarily referenced in order to demonstrate compliance with the requirements of this item.

6NYCRR 238-1.6 (c)

This item requires the owners and operators of each SO2 budget source and each SO2 budget unit to hold SO2 allowances available for compliance deductions under NYCRR 238-6.5; and how such allowances will be managed.

6NYCRR 238-1.6 (e)

This item requires the owners and operators of the SO2 budget source to keep on site at the source pertinent documents for a period of 5 years from the date the document is created.

6NYCRR 238-2.1

This section outlines the authorization and responsibilities of the SO2 authorized account representative.

6NYCRR 238-4.1

This section lists all of the requirements for the submission of the compliance certification report.

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6NYCRR 238-7.1

This section outlines the requirements for the submission of SO2 allowance transfers.

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.

Compliance Certification

Summary of monitoring activities at SAMUEL A CARLSON GENERATING STATION:

Location Facility/EU/EP/Process/ES	Type of Monitoring	Cond No.
FACILITY	record keeping/maintenance procedures	59
FACILITY	record keeping/maintenance procedures	60
FACILITY	record keeping/maintenance procedures	61
U-00020/-/DB1	continuous emission monitoring (cem)	86
U-00020/-/DB1	record keeping/maintenance procedures	87
U-00022	record keeping/maintenance procedures	94
U-00020	continuous emission monitoring (cem)	84
U-00020	record keeping/maintenance procedures	85
U-00023	work practice involving specific operations	97
U-00008	monitoring of process or control device parameters as surrogate	78
FACILITY	record keeping/maintenance procedures	62
U-00003/00003	monitoring of process or control device parameters as surrogate	68
U-00004/00004	monitoring of process or control device parameters as surrogate	74
FACILITY	record keeping/maintenance procedures	5
FACILITY	record keeping/maintenance procedures	6
U-00004	monitoring of process or control device parameters as surrogate	72
U-00004	monitoring of process or control device parameters as surrogate	73
U-00020	monitoring of process or control device parameters as surrogate	79
U-00020	monitoring of process or control device parameters as surrogate	80
U-00020	intermittent emission testing	81
U-00020	continuous emission monitoring (cem)	82
U-00022	monitoring of process or control device parameters as surrogate	90
U-00022	monitoring of process or control device parameters as surrogate	91
U-00022	monitoring of process or control device parameters as surrogate	92
U-00023	work practice involving specific operations	95
FACILITY	record keeping/maintenance procedures	7
FACILITY	record keeping/maintenance procedures	32
FACILITY	record keeping/maintenance procedures	34
FACILITY	record keeping/maintenance procedures	39
FACILITY	record keeping/maintenance procedures	40
FACILITY	record keeping/maintenance procedures	41
FACILITY	record keeping/maintenance procedures	101
FACILITY	monitoring of process or control device	42



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	parameters as surrogate	
FACILITY	continuous emission monitoring (cem)	43
FACILITY	continuous emission monitoring (cem)	44
FACILITY	continuous emission monitoring (cem)	102
FACILITY	work practice involving specific operations	103
FACILITY	work practice involving specific operations	45
FACILITY	intermittent emission testing	46
U-00003/00003/001	intermittent emission testing	69
U-00004/00004/002	intermittent emission testing	75
FACILITY	record keeping/maintenance procedures	47
FACILITY	monitoring of process or control device parameters as surrogate	48
FACILITY	monitoring of process or control device parameters as surrogate	49
FACILITY	record keeping/maintenance procedures	51
U-00003/00003/001/00004	continuous emission monitoring (cem)	71
U-00003/00003/001/00001	continuous emission monitoring (cem)	70
U-00004/00004/002/00007	continuous emission monitoring (cem)	76
U-00004/00004/002/0000A	continuous emission monitoring (cem)	77
U-00022	record keeping/maintenance procedures	93
U-00020/-/GT2	continuous emission monitoring (cem)	89
U-00023	intermittent emission testing	96
U-00020/-/GT1	continuous emission monitoring (cem)	88
FACILITY	record keeping/maintenance procedures	105
FACILITY	record keeping/maintenance procedures	108
FACILITY	record keeping/maintenance procedures	110
FACILITY	record keeping/maintenance procedures	111
FACILITY	record keeping/maintenance procedures	114

Basis for Monitoring

PRR Basis of Monitoring at the Samuel A. Carlson Generating Station (Ren 1):

1. A significant number of permit conditions at the facility level are based on citations from 6 NYCRR Parts 200, 201, 202, 211, 215 and 217 and are conditions that are in every Title V (five) operating permit. These conditions generally reiterate rules that apply to most facilities and some require the permittee to monitor or take actions.

2. Permit conditions that list 6NCRR Part 201-7 (Permits and Registrations, Federally enforceable Emission Caps) contains federally enforceable emission capping conditions which allow the identified emission units, emission points, or emission sources avoid otherwise applicable requirements.

This permit contains a new capping condition on coal boilers 10 and 11 (emission unit (EU) U-00004) which limits the NOx emissions to zero tons. This will create 125 tons of emission reduction credits that the permittee will use to offset the NOx emissions from the proposed 500 mmBtu/hr circulating fluidized bed (CFB) boiler in a netting demonstration. This will allow the CFB project to avoid 40 CFR Part 52.21, Prevention of Significant Deterioration (PSD) and 6NYCRR 231-2, New Source Review in Non-attainment Areas and Ozone Transport Regions NOx requirements for NOx. This limit becomes effective the day the CFB boiler project (Air State Facility Permit Id. 9-0608-00053/00030) commences operation, where "commence operation" allows for a shakedown period not to exceed 180 days as defined in 6 NYCRR section 231-2.1.

Emission caps for nitrogen oxide, carbon monoxide, and particulates less than 10 microns in diameter (PM-10) were instituted for the permitting of the LM6000 combustion gas turbine project during years 2000/2001 so the project would avoid the requirements of the Prevention of Significant Deterioration (PSD) provisions in 40 CFR Part 52.21 and 6NYCRR 231-2, New Source Review in Non-attainment

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Areas and Ozone Transport Regions NOx requirements. The permittee limited emissions from the combustion gas turbine (CGT, emission unit EU U-00020), the small gas boiler (EU U-00022), and coal boilers 10 and 11 (EU U-00004) to avoid the requirements of PSD on the CGT when it was constructed. The limits continue to apply.

3. Permit conditions that list 6NYCRR Part 204 (NOx Budget Trading Program) or one of its subparts as the applicable requirement, limit emissions of oxides of nitrogen (NOx) from the coal boilers and the combustion gas turbine, EU's U-00003, U-00004, and U-00020, during the ozone season, which is between May 1 and September 30. A NOx continuous emission monitoring system (CEMS) that is certified according to 40 CFR Part 75 (Acid Rain Emission Monitoring) is used to monitor and calculate emissions. The monitoring procedures are prescribed by the regulation.

4. Permit conditions that list 6NYCRR Part 212 (General Process Emission Sources) as the applicable requirement regulate the particulate and opacity emissions from the material handling emission units. The particulate monitoring and emission limits are contained a Compliance Assurance Monitoring (CAM) condition under citation 40 CFR Part 64 instead of in a Part 212 conditions. All the applicable emission sources are grouped under the one permit condition. The CAM monitoring requirements are the same as those in the Part 212 opacity monitoring condition so the one monitoring action meets the requirements of two permit conditions.

5. Permit conditions that list 6NYCRR Part 225-1 (Fuel Composition and Use - sulfur limitations) as the applicable requirement regulates the sulfur content of the fuel oil used by any source at the plant and the sulfur dioxide emissions from the coal boilers. The emission units subject to the Part 225-1 limits, monitoring, record keeping and reporting requirements are grouped above each condition they are subject to. The sulfur limits that have not been accepted by EPA into the State Implementation Plan are in the state side of the permit.

6. Permit conditions that list 6NYCRR Part 227-1 (Stationary Combustion Installations) as the applicable requirement regulates particulate and opacity emissions from liquid or solid fuel fired combustion sources. The emission units subject to the Part 227-1 limits, monitoring, record keeping and reporting requirements are grouped above each permit condition. The particulate limits for the coal boilers are contained in a Compliance Assurance Monitoring (CAM) condition under citation 40 CFR Part 64 instead of in a Part 227-1 condition.

The permittee entered into a consent order for excess opacity in July 2001. The Opacity Reduction plan that was part of the order was included in the original Title V permit. The elements that have not been completed or are ongoing, have been carried over to this permit and are contained in one permit condition.

7. Permit conditions that list 6NYCRR Part 227-2 (Nitrogen Oxide Reasonably Available Control Technology, NOx RACT) as the applicable requirement specifies what information must be recorded and submitted by the regulation. The NOx RACT emission limits apply to the coal boilers, LM6000 combustion gas turbine, duct burner, the emergency combustion gas turbine, and the small gas boiler.

8. Permit conditions that list 6NYCRR 231-2 (New Source Review in Non-Attainment Areas and Ozone Transport Regions) as the applicable requirement either created emission reduction credits (ERC's) or consumed ERC's. Some 6NYCRR Part 201-7 citations list Part 231-2 as the regulation that is being

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avoided by capping emissions. Together, Part 201-7 capping conditions and Part 231-2 ERC creation permit conditions created ERC's which allowed the facility to avoid the modeling, emission control, emission offsets of Part 231-2 for the construction of the combustion gas turbine project, EU U-00020, or for the proposed construction of the circulating fluidized bed (CFB) project.

This permit contains a new capping condition on coal boilers 10 and 11 (EU U-00004) which limits their NOx emissions to zero tons. This will create 125 tons of emission reduction credits that the permittee will use to offset the NOx emissions from the proposed 500 mmBtu/hr circulating fluidized bed (CFB) boiler in a netting demonstration. This will allow the CFB project to avoid the PSD and 6NYCRR 231-2, New Source Review in Non-attainment Areas and Ozone Transport Regions NOx requirements. This limit becomes effective the day the CFB boiler project (Air State Facility Permit Id. 9-0608-00053/00030) commences operation, where "commence operation" allows for a shakedown period not to exceed 180 days as defined in 6 NYCRR section 231-2.1.

This citation applies to facilities that are subject to the Prevention of Significant Deterioration (PSD) provisions in 40 CFR Part 52.21; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i). The permittee has limited emissions from the combustion gas turbine (CGT, emission unit (EU) U-00020), the small gas boiler (EU U-00022), and coal boilers 10 and 11 (EU U-00004) to avoid the requirements of PSD on the CGT when it was constructed. The limits continue to apply.

9. Permit conditions that list 6NYCRR 237 (Acid Deposition Reduction NOx Budget Trading Program) as the applicable requirement, limit the emissions of Oxides of Nitrogen (NOx) from the combustion gas turbine, EU U-00020, during the non-ozone season (October 1 to April 30). The emissions are monitored with a NOx CEMS in the stack. The record keeping and monitoring requirements are prescribed by the regulation. The coal boilers, and the heat recovery steam generator associated with the LM6000 combustion gas turbine, provide steam through a common header which can feed either one or both of the steam turbine generators. The steam turbine generators have been de-rated from 25 and 28.75 megawatts (MW) to 24.5 MW each in 2004 to avoid applicability of Part 237. A September 27, 2004 letter from the NYSDEC acknowledges this de-rate.

10. Permit conditions that list 6NYCRR 238 (Acid Deposition Reduction SO2 Budget Trading Program) as the applicable requirement, limit the emissions of sulfur dioxide (SO2) in tons per year from the four coal boilers and the combustion gas turbine. The boiler emissions are monitored with a continuous emission monitor system, and for the turbine through fuel use and fuel analysis for sulfur content. The record keeping and monitoring requirements are prescribed by the regulation.

11. Permit conditions that list 40CFR60 subpart A (New Source Performance Standards (NSPS) - General Provisions) as the applicable requirement, requires the facility to comply with notification, monitoring, record keeping, and reporting requirements that all NSPS sources are subject to.

12. The duct burner is subject to permit conditions that list 40CFR60 subpart Db (New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units, 100 to 250 million Btu per hour) as the applicable requirement, and limit the emissions of sulfur dioxide (SO2), nitrogen oxide (NOx), particulates, and opacity. The record keeping and monitoring requirements are prescribed by the regulation. The duct burner is not required to use a continuous emission monitoring system to measure NOx emissions, but the permittee choose to use one. The duct burner only burns natural gas so it is only subject to the NOx requirements and fuel monitoring requirements.

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13. Permit conditions that list 40CFR60 subpart Dc (New Source Performance Standards (NSPS) (New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 10 to 100 million Btu per hour) as the applicable regulation, requires the small natural gas boiler to have an annual tune up and monitor fuel consumption daily.

14. Permit conditions that list 40CFR60 subpart Y (New Source Performance Standards (NSPS) (New Source Performance Standards for Coal Preparation Plants) as the applicable regulation sets an opacity limit for the coal handling system, EU U-00008, since it was constructed or modified after the applicability date of the rule. The opacity monitoring requirement includes the same actions required by the Part 212 opacity and the CAM particulate monitoring permit conditions.

15. The combustion gas turbines are subject to 40CFR60 subpart GG (New Source Performance Standards for Stationary Gas Turbines) which limits the emissions of sulfur dioxide (SO₂), nitrogen oxide (NO_x), and opacity. The record keeping and monitoring requirements are prescribed by the regulation.

The permittee requested not to monitor the sulfur content of the natural gas fired in the LM6000 combustion gas turbine as allowed for in 40 CFR Part 60 subpart GG, 60.334(h)(3). Analytical results were submitted with a July 25, 2006 letter to support this request. The permittee does not use the nitrogen content of the natural gas to calculate the NO_x emission limit in 40 CFR Part 60 subpart GG, so they do not need to measure the nitrogen content of natural gas for subpart GG purposes.

The emergency combustion gas turbine generator set is not subject to the subpart GG NO_x requirements because it is an emergency turbine that is limited to 500 hours of operation per year, but it must still meet the sulfur in fuel oil requirements of subpart GG.

16. The permittee is subject to the requirements of Continuous Assurance Monitoring (CAM), 40CFR Part 64, because the pre-control particulate emissions from the coal boilers and the material handling systems are greater than 100 tons per year. Particulate CAM conditions for emission units U-00003, U-00004, U-00005, U-00006, U-00007, and U-00008 are included in the permit. This permittee is not subject to the CAM requirements for NO_x at the coal boiler or EU U-00020 combustion gas turbine stacks because these stacks use CEMS which provide continuous compliance determinations for NO_x emissions.