



Facility Identification Data

Name: DUNKIRK STEAM GENERATING STATION
Address: 106 POINT DR NORTH
DUNKIRK, NY 14048

Owner/Firm

Name: DUNKIRK POWER LLC
Address: 211 CARNEGIE CENTER
PRINCETON, NJ 08540, USA
Owner Classification: Corporation/Partnership

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

This permit renews the Title V Air Permit issued to the Dunkirk Steam Generating Station. It also adds permit conditions for the following:

This permit includes the annual sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emission limits contained in a Consent Decree (02-CV-0024S) issued by the United States Court for the Western District of New York on June 6, 2005 to resolve allegations of violating the terms of its Title V operating permit and allegations of operating the Dunkirk Steam Generating Station and Huntley Steam Generating Station (Town of Tonawanda, Erie County) with



deficient Title V operating permits. The SO₂ and NO_x limits apply to the combined emissions from the Dunkirk Steam Generating Station and the Huntley Steam Generating Station from calendar year 2005 through 2013 for SO₂ and through 2012 for NO_x.

This permit sets short term SO₂ emission limits so that the modeled emissions do not exceed the National Ambient Air Quality Standards (NAAQS) for SO₂. The plant must now meet a 2.5 lb SO₂/mmBtu 1-hour emission limit and a 2.07 lb SO₂/mmBtu daily 24-hr emission limit to avoid modeled exceedances of the SO₂ NAAQS. Using the daily 24-hour average emission limit the model predicted SO₂ emissions do not exceed the primary 24-hour NAAQS for SO₂ listed in 40 CFR Part 50.4. Using the 1-hour average emission limit, the model predicted SO₂ emissions do not exceed the short term secondary 3-hour NAAQS for SO₂ listed in 40 CFR Part 50.5. These limits are more restrictive than the daily 5.0 lb SO₂/mmBtu emission limit in 6 NYCRR Part 225-1, Fuel Composition and Use - Sulfur Limitations, so the 5.0 lb SO₂/mmBtu limit was removed from this permit.

New to this permit are the State Acid Deposition Reduction (ADR) Program regulations for NO_x, 6NYCRR Part 237, and SO₂, Part 238. The ADR NO_x program sets a mass emission limit during the non-ozone season, between October 1st and April 30th. The ADR SO₂ program sets calendar year emission limits.

This permit also includes the State's CAIR (Clean Air Interstate Rule) rules which regulate emissions of NO_x during the ozone season (May 1 through September 30th) starting in 2009 (6NYCRR Part 243), annual emissions of NO_x starting in 2009 (6NYCRR Part 244), and annual emissions of SO₂ starting in 2010 (6NYCRR Part 245). The CAIR program is intended to replace the State Acid Deposition Reduction Programs (6NYCRR Part 237 and 238) and the NO_x Budget Trading Program (6NYCRR Part 204).

During this permit term the facility is scheduled to complete an extensive pollution control project. The project includes replacing the electrostatic precipitator's at all four boilers with fabric filters, which should significantly reduce periods of excess opacity and may allow the existing Excess Opacity Consent Order (CO9-19990722-29) to be closed. The project also includes the installation of a selective non-catalytic reduction (SNCR) system along with the associated urea storage, handling, and injection systems to reduce NO_x emissions. A trona storage, handling and injection system will be installed to control acid gas emissions which will reduce SO₂ emissions. The trona will arrive on site with the proper consistency for injection. The combustion process, burners and air supply, will be modified to stage combustion for lower NO_x emissions. A powdered activated carbon (PAC) storage, handling and injection system will be installed to reduce mercury emissions. The trona and PAC will form filter cake on the fabric filters to improve the pollution removal efficiency. The above projects are scheduled to commence on boilers 3 and 4 in November 2008 and be in full operation by June 30th, 2009. The projects are scheduled to start on boilers 1 and 2 in May 2009 and be in commercial operation by December 30th, 2009. The basic information for this project is included in this permit. The plant will provide more detailed information as the design progresses for Department review and approval.

On January 27th, 2007 6 NYCRR Part 246: Mercury Reduction Program for Coal-Fired Electric Utility Steam Generating Units became effective and applies to this facility. The facility is limited to 106.0 pounds of mercury a year starting in 2010 through 2014. The facility plans to use a PAC injection system with the fabric filters to reduce mercury emissions and comply with the rule.

The Compliance Assurance Monitoring (CAM), 40 CFR Part 64, conditions for particulates (PM) from the boilers have been modified. The ESP CAM conditions now include opacity action levels, updated ESP voltage action levels, and the existing annual PM compliance testing. A PM CAM condition was added for the baghouses, when they replace the ESPs in late 2009. It carries over the annual compliance testing, and they have to choose between using a base line opacity and continuous opacity monitors, or using baghouse leak detection systems to monitor particulate emissions.

Since the previous permit was issued the plant installed two oil fired duct burners for each furnace that are also capable of firing natural gas. The 3.5 mmBtu/hr duct burners are located in the coal feed line to the coal pulverizers



and are designed to remove moisture from coal and heat up the coal before it reaches the coal pulverizes. The installation of the duct burners did not require a permit modification when they were installed, but they are included in this permit.

Note that the table in the Program Applicability section, below, is computer generated based on conditions included in the permit. The entry regarding PSD applicability does not reflect the nuances of the Second Circuit decision in *NYPIRG v. Johnson*, 472 F.3d 172 (2nd Cir. 2005). Please refer to the decision for details.

Attainment Status

DUNKIRK STEAM GENERATING STATION is located in the town of DUNKIRK 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 < 10 μ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO ₂)	ATTAINMENT
Ozone*	TRANSPORT REGION (NON-ATTAINMENT)
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

The Dunkirk Steam Station consists of 4 pulverized coal, dry-bottom, tangential-fired boilers. In addition to coal, each unit can also fire distillate oil (primarily used for start-ups and flame stabilization), waste fuel A (waste oil generated on site), wastewater treatment sludge (generated on site), boiler cleaning solutions, and a coal/sand mixture from the bivalve gravity filter at the wastewater treatment plant.

Boilers 1 (emission unit U-00001) and boiler 2 (emission unit U-00002) each have individual stacks and have nominal heat input capacities of 922.2 million British thermal units per hour (mmBtu/hr) each. Boilers 3 and 4 share a common stack (i.e., emission point) and have a combined nominal heat input capacity of 3,672 mmBtu/hr. Each boiler has a nominal heat input capacity of 1,836 mmBtu/hr. Together boilers 3 and 4 comprise emission unit U-00003.

Each boiler is exhausted through an electrostatic precipitator (ESP) for control of particulate matter. Boilers 1, 2, 3, and 4 each have dedicated hot-side ESPs. Units 1 and 2 have low NO_x burners with over fire air to control NO_x. Units 3 and 4 have low NO_x concentric firing systems with separated over fire air.



When the pollution control projects are completed in June 2009 for boilers 3 and 4, and December 2009 for boilers 1 and 2, all four boilers will have low NO_x concentric firing systems with separated over-fire air and will be equipped with a Selective Non-Catalytic Reduction (SNCR) system to reduce NO_x emissions, will have fabric filters for the control of particulates, will include dry scrubbing systems injecting trona to reduce SO₂, and are expected to inject Powdered Activated Carbon into the flue gas before the baghouse to reduce mercury emissions.

The facility also includes the following emission units:

- U-00004 - Coal storage piles and associated coal handling equipment;
- U-00005 - Activated carbon injection system, storage, and handling equipment;
- U-00006 - Trona injection system, storage, and equipment;
- U-00007 - Urea injection system, storage and equipment; and
- U-00008 - Flyash storage silo and vents.

Permit Structure and Description of Operations

The Title V permit for DUNKIRK STEAM GENERATING STATION is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
 - incinerator - devices which burn waste material for disposal
 - control - emission control devices
 - process - any device or contrivance which may emit air contaminants
- that is not included in the above categories.

DUNKIRK STEAM GENERATING STATION is defined by the following emission unit(s):

Emission unit U00001 - Emission unit U-00001 consists of a nominal 922.2 MMBtu/hr steam boiler (boiler 1) and steam turbine- generator set which generates approximately 100 megawatts of electricity. The boiler primarily fires coal as described in process P12 and P13, however, distillate oil is used to bring the boiler up to temperature during start up and other conditions when necessary, as described in process P11. Limited small amounts of waste materials/fuels are burned in the boiler during coal firing as described in the process descriptions for P12 and P13. Boiler 1 was also retrofitted with a co-firing system designed to handle, process and inject biomass fuel as described in process P14.

There are 4 processes associated with this emission unit. They are numbered P11, P12, P13 & P14. Emission Unit 1 consists of emission point 00001 (the stack), emission source S0001 (boiler 1), and emission source S001C (electrostatic precipitator), emission sources S1DB1 and S1DB2 (duct burners), S01C1 (fabric filter),



and S01C2 (SNCR - selective non-catalytic reduction). The fabric filter and SNCR systems should be in operation by December 30, 2009. The fabric filters will replace the existing ESP.

In the conversion of fuel supply from Northern Appalachian coal (bituminous) to Powder River Basin coal (subbituminous), Dunkirk Power has determined that the addition of two duct burners on Boiler 2 is necessary. Each duct burner will not exceed an annual average heat input of 3 mmBtu/hr. The duct burners will utilize number 2 distillate fuel oil as the primary fuel, with the installed future capability of firing natural gas. The duct burners are installed in the primary air ducts upstream from the coal pulverizers. Their purpose is to evaporate moisture in the coal during high load, wet fuel conditions.

Emission unit U00001 is associated with the following emission points (EP):
00001

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

Process: P11 is located at Building Main Plant - The burning of distillate oil in boiler 1 during startup and other conditions when necessary. Boiler 1 is normally coal fired.

Process: P12 is located at Building Main Plant - The burning of coal in boiler 1 to generate electricity from the steam turbine - generator set. This process also allows co-firing of distillate oil and limited amounts of wastewater treatment plant sludge, boiler cleaning chemicals and coal/sand mixture generated by the wastewater treatment plant bivalve gravity filter.

This process includes the injection of urea for the selective non-catalytic reduction system to reduce NOx emissions, trona injection for SO2 emissions reduction, and powdered activated carbon (planned) injection for mercury emissions reduction. The plant plans to have these processes operational by December 30, 2009.

Process: P13 is located at Building Main Plant - Boiler 1 is being fired under normal coal fired conditions to generate electricity, however, waste fuel A is also being fired.

This process includes the injection of urea for the selective non-catalytic reduction system to reduce NOx emissions, trona injection for SO2 emissions reduction, and powdered activated carbon (planned) injection for mercury emissions reduction. The plant plans to have these processes operational by December 30, 2009.

Process: P14 is located at Building Main Plant - This process allows the co-firing of coal and biomass fuel. Biomass fuel includes energy crops and clean woody residues. Biomass is received in 2 inch sized chips or pellets by truck to a receiving pit. The material is lifted from the receiving pit by a bucket elevator to a fuel hopper and is then moved by a flying Dutchman to a belt conveyor. A hammer mill pulverizes the material to one quarter inch size chips. An exhaustor then pneumatically sends the material through a pipe to a silo for storage. A baghouse and baghouse blowers are located above the silo to collect and control excess dust. The material is fed into a small reclaim box through a reclaim auger located at the bottom of the silo, then the material is moved out of the reclaim box with a discharge auger. The material is dropped into a second hammer mill where it is pulverized to one eighth inch size chips. The pulverized biomass fuel is pulled through the hammer mill by another exhaustor and blowers through piping to a riffler distributor inside the boiler house.

The riffler distributes fuel flow into four separate pipes that flow into the four corners of Boiler 1.

This process includes the injection of urea for the selective non-catalytic reduction system to reduce NOx emissions, trona injection for SO2 emissions reduction, and powdered activated carbon (planned) injection for mercury emissions reduction. The plant plans to have these processes operational by December 30, 2009.

Emission unit U00002 - Emission unit U-00002 consists of a nominal 922.2 MMBtu/hr steam boiler (boiler 2) and steam turbine generator set which generates approximately 100 megawatts of electricity. The boiler primarily fires coal as described in process P22 and P23, however, distillate oil is used to bring the boiler up to temperature during start up and other conditions when necessary, as described in process P21. Limited small amounts of waste materials/fuels are burned in the boiler during coal firing as described in the process descriptions for P22 and P23.

There are 3 processes associated with this emission unit. They are numbered P21, P22 & P23. Emission Unit 2 consists of emission point 00002 (the stack), emission source S0002 (boiler 2), emission source S002C (electrostatic precipitator), emission sources S2DB1 and S2DB2 (duct burners), S02C1 (fabric filter), and



S02C2 (SNCR - selective non-catalytic reduction). The fabric filter and SNCR systems should be in operation by December 30, 2009. The fabric filters will replace the existing ESP.

In the conversion of fuel supply from Northern Appalachian coal (bituminous) to Powder River Basin coal (subbituminous), Dunkirk Power has determined that the addition of two duct burners on Boiler 2 is necessary. Each duct burner will not exceed an annual average heat input of 3 mmBtu/hr. The duct burners will utilize number 2 distillate fuel oil as the primary fuel, with the installed future capability of firing natural gas. The duct burners are installed in the primary air ducts upstream from the coal pulverizers. Their purpose is to evaporate moisture in the coal during high load, wet fuel conditions.

Emission unit U00002 is associated with the following emission points (EP):
00002

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

Process: P21 is located at Building Main Plant - The burning of distillate oil in boiler 2 during startup and other conditions when necessary. Boiler 2 is normally coal fired.

Process: P22 is located at Building Main Plant - The burning of coal in boiler 2 to generate electricity from the steam turbine - generator set. This process also allows co-firing of distillate oil and limited amounts of wastewater treatment plant sludge, boiler cleaning chemicals and coal/sand mixture generated by the wastewater treatment plant bivalve gravity filter.

This process includes the injection of urea for the selective non-catalytic reduction system to reduce NOx emissions, trona injection for SO2 emissions reduction, and powdered activated carbon (planned) injection for mercury emissions reduction. The plant plans to have these processes operational by December 30, 2009.

Process: P23 is located at Building Main Plant - Boiler 2 is being fired under normal coal fired conditions to generate electricity, however, waste fuel A is also being fired.

This process includes the injection of urea for the selective non-catalytic reduction system to reduce NOx emissions, trona injection for SO2 emissions reduction, and powdered activated carbon (planned) injection for mercury emissions reduction. The plant plans to have these processes operational by December 30, 2009.

Emission unit U00003 - Emission unit U-00003 consists of two (2) nominal 1,836 MMBtu/hr steam boilers (boiler 3 and 4) and steam turbine-generator sets which generate approximately 200 megawatts of electricity each - 400 MW in total. The boilers primarily fire coal as described in process P32 and P33, however, distillate oil is used to bring the boilers up to temperature during start up, and other conditions when necessary, as described in process P31. Limited small amounts of waste materials/fuels are burned in the boilers during coal firing as described in the process descriptions for P32 and P33.

There are 3 processes associated with this emission unit. They are numbered P31, P32 & P33. Emission Unit 3 consists of emission point 00003 (the stack), emission source S0003 (boiler 3), emission source S003C (electrostatic precipitator for boiler 3), emission sources S3DB1 and S3DB2 (duct burners for boiler 3), emission source S03C1 (fabric filter for boiler 3), emission source S03C2 (SNCR - selective non-catalytic reduction for unit 3), emission source S0004 (boiler 4), emission source S004C (electrostatic precipitator for boiler 4), emission sources S4DB1 and S4DB2 (duct burners for boiler 4), emission source S04C1 (fabric filter for boiler 4), and emission source S04C2 (SNCR for boiler 4). The fabric filters will replace the existing ESP by June 30, 2009.

In the conversion of fuel supply from Northern Appalachian coal (bituminous) to Powder River Basin coal (subbituminous), Dunkirk Power has determined that the addition of two duct burners each on Boilers 3 and 4 is necessary. Each duct burner will have the capacity to operate between 1.1 mmBtu/hr and 4.5 mmBtu/hr but will not exceed an average heat input of 4 mmBtu/hr. The duct burners will utilize number 2 distillate fuel oil as the primary fuel, with the installed future capability of firing natural gas. The duct burners are installed in the primary air ducts upstream from the coal pulverizers. Their purpose is to evaporate moisture in the coal during high load, wet fuel conditions.

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



00003

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

Process: P31 is located at Building Main Plant - The burning of distillate oil in boilers 3 and 4 during startup and other conditions when necessary. Boilers 3 and 4 are normally coal fired.

Process: P32 is located at Building Main Plant - The burning of coal in boilers 3 and 4 to generate electricity from the steam turbine - generator sets. This process also allows co-firing of distillate oil and limited amounts of wastewater treatment plant sludge, boiler cleaning chemicals and coal/sand mixture generated by the wastewater treatment plant bivalve gravity filter.

This process includes the injection of urea for the selective non-catalytic reduction system to reduce NOx emissions, trona injection for SO2 emissions reduction, and powdered activated carbon (planned) injection for mercury emissions reduction. The plant plans to have these processes operational by June 30, 2009.

Process: P33 is located at Building Main Plant - Boiler 3 and 4 being fired under normal coal fired conditions to generate electricity, however, waste fuel A is also being fired.

This process includes the injection of urea for the selective non-catalytic reduction system to reduce NOx emissions, trona injection for SO2 emissions reduction, and powdered activated carbon (planned) injection for mercury emissions reduction. The plant plans to have these processes operational by June 30, 2009.

Emission unit U00004 - Emission unit U-00004 consists of coal storage piles and associated coal handling equipment. The emission unit consists of four processes: P04 - rail car unloading and the stackout conveyor; P05 - marine vessel unloading; P06 - truck unloading; and P07 - the coal storage pile. Fugitive particulate matter is the only emission from these processes.

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

00004

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

Process: P04 is located at Building Coal Yard - Coal that arrives at the station by rail car, is unloaded by turning the cars upside down. The coal is collected into two hoppers. Apron feeders take coal from the hoppers to conveyer #1, which deposits coal on conveyer #2. Conveyer #2 deposits coal onto the stackout conveyor to the pile.

Process: P05 is located at Building Coal Yard - Coal that arrives by marine vessel is unloaded directly onto the coal pile. Coal unloading is the only emission source (S0008) associated with process P05.

Process: P06 is located at Building Coal Yard - Coal that arrives by truck can be dumped in one of several places. This dumping operation is the only emission source (S0009) associated with process P06.

Process: P07 is located at Building Coal Yard - This process includes the entrainment of coal dust in the air off the coal pile. Additionally, bulldozers are used to load coal out of the piles and dump it into a reclaim hopper and otherwise work the pile. The bulldozer will dump either eastern bituminous coal or subbituminous Powder River Basin coal through a reclaim hopper, which will then be transported by a by-pass conveyor to the boiler bunkers. There are four sources associated with this process: S0010 the coal pile, S0011, transporting coal with bulldozer, S11C1 steel load skirt, and S11C2, a dust suppression system. Hourly and annual throughput estimates are provided in the emission calculation section of the supporting Documentation.

Description of the Dust Control Systems:

Emission Source S11C1 - The steel load skirt is part of the new reclaim hopper and by-pass conveyor that was constructed in August 2004 on the north side of the coal pile. The coal cracker and hopper are totally self-enclosed to contain the coal and any dust. The by-pass conveyor is covered with steel load skirts to contain the coal and minimize fugitive dust. The load skirts are provided with dust containment covers fabricated from #10 gauge plate steel and fitted with skirt seals, clamping strips, and proper supports.

Emission Source S11C2 - The coal handling dust suppression system associated with the coal handling consists of dust suppression equipment at the railcar dumper, rail car dumper feeders, coal reclaim feeder, new coal reclaim feeder, and the coal breaker house as described below.

- Rotary Railcar Dumper Hopper: Sprays provide dust control during rotary railcar unloading, dust suppressant is sprayed at the top of the railcar and the front and rear of the coal collection hopper.



- Railcar Dumper Feeders: Sprays provide dust control during railcar unloading and conveyance, dust suppressants are sprayed at the front and back of the B-1 and B-2 feeder belts.
- Reclaim Feeder A-1: Sprays provide dust control at the Feeder A-1 to conveyor 1.1 transfer point, dust suppressants are sprayed at the front and rear of discharger feeder A-1 and the load point and top of the tail of conveyor 1.1.
- New Coal Reclaim Hopper: Sprays provide dust control during coal conveyance through the new reclaim system, dust suppressants are sprayed at the front and rear of the reclaim feeder.
- Breaker House: Sprays provide dust control during coal conveyance from the coal breaker and to the coal pile stackout, dust suppressants are sprayed at the front and rear of the conveyor 2.1 discharge, the top and load point of the tail of conveyor 3, and the load point and top of conveyor 5.

Emission unit U00005 - Emission unit U-00005 consists of the activated carbon storage, handling and injection equipment.

Emission unit U00005 is associated with the following emission points (EP):
00051, 00052

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

Process: P51 The unloading, loading and storage of activated carbon.

Emission unit U00006 - Emission unit U-00006 consists of the trona storage, handling and injection equipment.

Emission unit U00006 is associated with the following emission points (EP):
00061, 00062, 00063, 00064, 00065

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

Process: P61 The unloading, loading and storage of trona.

Emission unit U00007 - Emission unit U-00007 consists of urea storage, handling and injection equipment.

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

Process: P71 The unloading, loading and storage of urea.

Emission unit U00008 - Emission unit U-00008 consists of the flyash storage silo and vents.

Emission unit U00008 is associated with the following emission points (EP):
00081, 00082, 00083

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

Process: P80 is located at Building Fly Ash - Flyash is collected from the boiler exhaust by the electrostatic precipitators and then pneumatically conveyed to the flyash silo. The transport air and displaced air are exhausted from the silo through two baghouses and two emission points. The baghouses are in a parallel set up and can exhaust through either or both emission points.

Title V/Major Source Status

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

This facility is a major source for the Air Permitting Program (Title V (five) permitting). The potential to emit (PTE) sulfur dioxide is 50,200 tons per year (tpy), nitrogen oxide is 10,170 tpy, carbon monoxide is 874 tpy, particulate matter less than 10 microns in aerodynamic diameter (PM-10) is 2928 tpy, and particulate matter is 4381 tpy, which are all greater than the major source threshold of 100 tons per year. The PTE of volatile organic compounds (VOC) is 84 tpy which is greater than the major source threshold of 50 tpy for VOCs. The total hazardous air pollutants (HAPs) PTE is greater than 25 tpy. The PTE for individual HAPs, hydrogen chloride and hydrogen fluoride are 1647 tpy and 205 tpy, respectively, which are greater than the major source threshold for individual HAPs of 10 tpy.

Program Applicability



The following chart summarizes the applicability of DUNKIRK STEAM GENERATING STATION with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	NO
NSPS	YES
TITLE IV	YES
TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES

NOTES:

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

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

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

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

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific



stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

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

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

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

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

Compliance Status

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

Compliance Schedule:

Location	Regulation	Short Description
Facility/EU/EP/Process/ES		
FACILITY	6NYCRR 201-6.5(d)(1)	Compliance schedules
FACILITY	6NYCRR 227-1.3(a)	Smoke Emission Limitations.

Compliance Discussion:

DUNKIRK STEAM GENERATING STATION is in violations of the following requirement(s): This plant is operating under the Excess Opacity Consent Order (CO9-19990722-29, signed March 31st, 2004) because it has an unacceptable number of excess opacity events, hundred's per quarter. The compliance plan requires the plant to record the reason and corrective action of each 6-minute excess opacity event and then annually conduct a root cause analysis. The annual report is submitted to the Department with a plan for more corrective measures. To further address excess opacity the plant is scheduled to replace the electrostatic precipitators (ESP's) with fabric filters on all four units. The fabric filters are scheduled to be operating by June 30th, 2009 for units 3 and 4, and by December 30th 2009 for units 1 and 2.

The plant also operates under a Consent Decree (02-CV-0024S) issued by the United States Court for the Western District of New York on June 6, 2005 to resolve allegations of violating the terms of its Title V operating permit and allegations of operating the Dunkirk Steam Generating Station and Huntley Steam Generating Station (Town of Tonawanda, Erie County) with deficient Title V operating permits. The Consent Decree sets SO2 and NOx limits to the combined annual emissions from the Dunkirk Steam Generating Station and the Huntley Steam Generating Station from calendar year 2005 through 2013 for SO2 and through 2012 for NOx. Both facilities must apply for



permit modifications by June 1, 2013 to convert the final emission limits into plant-specific annual emission limits.

SIC Codes

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

SIC Code	Description
4911	ELECTRIC SERVICES

SCC Codes

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

SCC Code	Description
1-01-002-12	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - BITUMINOUS COAL PULVERIZED COAL: DRY BOTTOM (TANGENTIAL) (BITUMINOUS COAL)
1-01-005-01	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - DISTILLATE OIL Grades 1 and 2 Oil
1-01-009-03	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - WOOD/BARK WASTE Wood-Fired Boiler
1-01-012-01	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - SOLID WASTE Specify Waste Material in Comments
1-01-013-01	EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION ELECTRIC UTILITY BOILER - LIQUID WASTE Specify Waste Material in Comments
3-01-021-03	CHEMICAL MANUFACTURING CHEMICAL MANUFACTURING - SODIUM CARBONATE Trona Crushing/Screening
3-01-870-13	CHEMICAL MANUFACTURING CHEMICAL MANUFACTURING - INORGANIC CHEMICAL STORAGE (FIXED ROOF TANKS) CHEMICAL MFG.: INORGANIC CHEMICAL STORAGE UREA: BREATHING LOSS
3-05-103-03	MINERAL PRODUCTS MINERAL PRODUCTS - BULK MATERIALS OPEN STOCKPILES Coal
3-05-104-03	MINERAL PRODUCTS MINERAL PRODUCTS - BULK MATERIALS UNLOADING OPERATION Coal
3-05-320-06	MINERAL PRODUCTS STONE QUARRYING-PROCESSING (SEE ALSO 3-05-020 FOR DIFFERENT UNITS) MISCELLANEOUS OPERATIONS: SCREEN/CONVEY/HANDLING

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity



of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. ONY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
000092-52-4	1, 1 BIPHENYL	> 0	but < 10 tpy
000107-06-2	1,2-DICHLOROETHANE	> 0	but < 10 tpy
001746-01-6	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	> 0	but < 10 tpy
000121-14-2	2,4, DINITRO TOLUENE	> 0	but < 10 tpy
000078-59-1	2-CYCLOHEXEN-1-ONE, 3, 5, 5-TRIMETHYL	> 0	but < 10 tpy
000083-32-9	ACENAPHTHENE	> 0	but < 10 tpy
000208-96-8	ACENAPHTHYLENE	> 0	but < 10 tpy
000075-07-0	ACETALDEHYDE	> 0	but < 10 tpy
000108-05-4	ACETIC ACID ETHENYL ESTER	> 0	but < 10 tpy
000107-02-8	ACROLEIN	> 0	but < 10 tpy
000532-27-4	ALPHA-CHLOROACETOPHENONE	> 0	but < 10 tpy
007664-41-7	AMMONIA	>= 25	tpy but < 40 tpy
000120-12-7	ANTHRACENE	> 0	but < 10 tpy
007440-36-0	ANTIMONY	> 0	but < 10 tpy
007440-38-2	ARSENIC	> 0	but < 10 tpy
000071-43-2	BENZENE	> 0	but < 10 tpy
000098-82-8	BENZENE, (1-METHYLETHYL)	> 0	but < 10 tpy
000095-47-6	BENZENE, 1,2-DIMETHYL	> 0	but < 10 tpy
000056-55-3	BENZO (A) ANTHRACENE	> 0	but < 10 tpy
000050-32-8	BENZO (A) PYRENE	> 0	but < 10 tpy
000205-99-2	BENZO [B] FLUORANTHENE	> 0	but < 10 tpy
000191-24-2	BENZO [G, H, I] PERYLENE	> 0	but < 10 tpy
000100-44-7	BENZYL CHLORIDE	> 0	but < 10 tpy
007440-41-7	BERYLLIUM	> 0	but < 10 tpy
000117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE	> 0	but < 10 tpy
000075-25-2	BROMOFORM	> 0	but < 10 tpy
007440-43-9	CADMIUM	> 0	but < 10 tpy
000075-15-0	CARBON DISULFIDE	> 0	but < 10 tpy
000630-08-0	CARBON MONOXIDE	>= 250	tpy
000108-90-7	CHLOROBENZENE	> 0	but < 10 tpy
000067-66-3	CHLOROFORM	> 0	but < 10 tpy
007440-47-3	CHROMIUM	> 0	but < 10 tpy
000218-01-9	CHRYSENE	> 0	but < 10 tpy
007440-48-4	COBALT	> 0	but < 10 tpy
000075-09-2	DICHLOROMETHANE	> 0	but < 10 tpy
000071-55-6	ETHANE, 1,1,1-TRICHLORO	> 0	but < 10 tpy
000106-93-4	ETHANE, 1,2-DIBROMO	> 0	but < 10 tpy
000075-00-3	ETHANE, CHLORO	> 0	but < 10 tpy
000100-41-4	ETHYLBENZENE	> 0	but < 10 tpy
000206-44-0	FLUORANTHENE	> 0	but < 10 tpy
000086-73-7	FLUORENE	> 0	but < 10 tpy
000050-00-0	FORMALDEHYDE	> 0	but < 10 tpy
ONY100-00-0	HAP	>= 250	tpy
000110-54-3	HEXANE	> 0	but < 10 tpy
007647-01-0	HYDROGEN CHLORIDE	>= 10	tpy
007664-39-3	HYDROGEN FLUORIDE	>= 10	tpy
000193-39-5	INDENO [1, 2, 3-CD] PYRENE	> 0	but < 10 tpy
007439-92-1	LEAD	> 0	but < 10 tpy
007439-96-5	MANGANESE	> 0	but < 10 tpy
007439-97-6	MERCURY	> 0	but < 10 tpy
000080-62-6	METHYL ACRYLIC ACIDMETHYL ESTER	> 0	but < 10 tpy
000074-83-9	METHYL BROMIDE	> 0	but < 10 tpy
000074-87-3	METHYL CHLORIDE	> 0	but < 10 tpy
000078-93-3	METHYL ETHYL KETONE	> 0	but < 10 tpy
000060-34-4	METHYL HYDRAZINE	> 0	but < 10 tpy



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001634-04-4	METHYL TERTBUTYL ETHER	> 0 but < 10 tpy
000091-20-3	NAPHTHALENE	> 0 but < 10 tpy
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS	> 0 but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN	>= 250 tpy
0NY075-00-0	PARTICULATES	>= 250 tpy
000127-18-4	PERCHLOROETHYLENE	> 0 but < 10 tpy
000085-01-8	PHENANTHRENE	> 0 but < 10 tpy
000108-95-2	PHENOL	> 0 but < 10 tpy
0NY075-00-5	PM-10	>= 250 tpy
000151-50-8	POTASSIUM CYANIDE	> 0 but < 10 tpy
000123-38-6	PROPIONALDEHYDE	> 0 but < 10 tpy
000129-00-0	PYRENE	> 0 but < 10 tpy
007782-49-2	SELENIUM	> 0 but < 10 tpy
000100-42-5	STYRENE	> 0 but < 10 tpy
007446-09-5	SULFUR DIOXIDE	>= 250 tpy
000108-88-3	TOLUENE	> 0 but < 10 tpy
0NY998-00-0	VOC	>= 50 tpy but < 100 tpy
001330-20-7	XYLENE, M, O & P MIXT.	> 0 but < 10 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

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

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

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

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

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

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

201-1.10(b)
The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

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

201-6.3(a)(4)
Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

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

201-6.3(d)(12)
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.



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Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a) (2)
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a) (3)
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a) (5)
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR Part 201-6.5(a) (6)
This permit does not convey any property rights of any sort or any exclusive privilege.

Item I: Severability - 6 NYCRR Part 201-6.5(a) (9)
If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)
All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

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

Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)
This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years,



a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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

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

Item L: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility



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regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
FACILITY		84	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 50	67, 68	National Primary and Secondary Ambient Air Quality Standards
U-00004	40CFR 60-Y	83	Standards of Performance for Coal Preparation Plants
FACILITY	40CFR 64	69, 70	COMPLIANCE ASSURANCE MONITORING
U-00001/00001	40CFR 64	75, 76	COMPLIANCE ASSURANCE MONITORING
U-00002/00002	40CFR 64	77, 78	COMPLIANCE ASSURANCE MONITORING
U-00003/00003	40CFR 64	80, 81	COMPLIANCE ASSURANCE MONITORING
FACILITY	40CFR 64.8	71	CAM - Quality improvement plan (QIP) requirements
FACILITY	40CFR 68	20	Chemical accident prevention provisions
FACILITY	40CFR 72-A.6(a)(1)	72	The Title IV Phase 1 units are at Dunkirk, Greenidge, Milliken, Northport and Port Jefferson stations only.
FACILITY	40CFR 82-F	21	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	9	
FACILITY	6NYCRR 201-1.4	85	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	10	
FACILITY	6NYCRR 201-1.8	11	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	12	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	13	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	22, 73, 74	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5(a)(4)	14	
FACILITY	6NYCRR 201-6.5(a)(7)	2	
FACILITY	6NYCRR 201-6.5(a)(8)	15	
FACILITY	6NYCRR 201-6.5(c)	3, 23	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(c)(2)	4	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(c)(3)(ii)	5	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(d)(1)	24, 25, 26	
FACILITY	6NYCRR 201-6.5(d)(5)	16	
FACILITY	6NYCRR 201-6.5(e)	27	



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FACILITY	6NYCRR 201-6.5 (f) (6)	17	
FACILITY	6NYCRR 202-1.1	18	
FACILITY	6NYCRR 202-2.1	6	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	7	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 204-1.6	28	
FACILITY	6NYCRR 204-4.1	29	Compliance Certification Report
FACILITY	6NYCRR 204-7.1	30	Submission of NOx Allowance Transfers
FACILITY	6NYCRR 204-8.1	31	
FACILITY	6NYCRR 204-8.2	32	Initial Certification and Recertification Procedures
FACILITY	6NYCRR 204-8.3	33	
FACILITY	6NYCRR 204-8.4	34	
FACILITY	6NYCRR 204-8.5	35	Recordkeeping and Reporting
FACILITY	6NYCRR 204-8.7	36	Additional Requirements to Provide Heat Input Data for Allocations Purposes
FACILITY	6NYCRR 211.2	86	General Prohibitions - air pollution prohibited.
U-00004	6NYCRR 211.2	117	General Prohibitions - air pollution prohibited.
U-00008	6NYCRR 211.2	118	General Prohibitions - air pollution prohibited.
FACILITY	6NYCRR 211.3	19	General Prohibitions - visible emissions limited
FACILITY	6NYCRR 212.4 (a)	87	General Process Emission Sources - emissions from new sources and/or modifications
U-00001/00001	6NYCRR 212.4 (a)	114	General Process Emission Sources - emissions from new sources and/or modifications
U-00002/00002	6NYCRR 212.4 (a)	115	General Process Emission Sources - emissions from new sources and/or modifications
U-00003/00003	6NYCRR 212.4 (a)	116	General Process Emission Sources - emissions from new sources and/or modifications
FACILITY	6NYCRR 212.4 (c)	37	General Process Emission Sources - emissions from new processes and/or modifications
FACILITY	6NYCRR 212.6 (a)	38, 39	General Process Emission Sources - opacity of emissions limited
U-00004	6NYCRR 212.6 (a)	82	General Process Emission Sources - opacity of emissions limited
FACILITY	6NYCRR 215	8	
FACILITY	6NYCRR 225-1.2 (a) (2)	40, 41, 88, 89	Sulfur in Fuel Limitations Post 12/31/87.
FACILITY	6NYCRR 225-2.3 (b) (1)	42	Eligibility to burn waste fuel A.
FACILITY	6NYCRR 227-1.2 (a) (4)	43	Particulate Emissions Firing Solid Fuels.
U-00003/00003	6NYCRR 227-1.2 (b)	79	Particulate Emissions from 2 or More Connected Furnaces.
FACILITY	6NYCRR 227-1.3 (a)	44, 45, 46	Smoke Emission Limitations.



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FACILITY	6NYCRR 227-1.4 (a)	90	Stack Monitoring. (see narrative)
FACILITY	6NYCRR 227-1.4 (b)	47	
FACILITY	6NYCRR 227-1.7 (a)	48	
FACILITY	6NYCRR 227-2.4 (a)	49, 50	Control requirements for very large boilers.
FACILITY	6NYCRR 227-2.5 (b)	51	System-wide averaging option.
FACILITY	6NYCRR 237-1.6 (c)	91	Nitrogen oxides requirements
FACILITY	6NYCRR 237-1.6 (e)	92	Recordkeeping and reporting requirements
FACILITY	6NYCRR 237-4.1	93	Compliance certification report.
FACILITY	6NYCRR 237-7.1	94	Submission of NOx allowance transfers
FACILITY	6NYCRR 237-8	95	MONITORING AND REPORTING
FACILITY	6NYCRR 238-1.6 (c)	96	Sulfur Dioxide requirements
FACILITY	6NYCRR 238-1.6 (e)	97	Recordkeeping and Reporting Requirements
FACILITY	6NYCRR 238-2.1	98	Authorization/responsibilities of the authorized account representative
FACILITY	6NYCRR 238-4.1	99	Compliance certification report
FACILITY	6NYCRR 238-7.1	100	Submission of SO2 allowance transfers
FACILITY	6NYCRR 238-8	101	
FACILITY	6NYCRR 243-1.6 (c)	52	NOx Ozone Season Emission Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (d)	53	Excess Emission Requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-1.6 (e)	54	Recordkeeping and reporting requirements - CAIR NOx Ozone Season Trading Program
FACILITY	6NYCRR 243-2.1	55	Authorization and responsibilities - CAIR Designated Representative General Requirements -
FACILITY	6NYCRR 243-8.1	56, 57	Monitoring and Reporting Out of control periods -
FACILITY	6NYCRR 243-8.3	58	Monitoring and Reporting Quarterly reports re:
FACILITY	6NYCRR 243-8.5 (d)	59	recordkeeping and reporting - Monitoring and Reporting
FACILITY	6NYCRR 243-8.5 (e)	60	Compliance certification re: recordkeeping and reporting - Monitoring and Reporting
FACILITY	6NYCRR 244-1	61	and Reporting CAIR NOx Ozone Annual Trading Program General Provisions
FACILITY	6NYCRR 244-2	62	CAIR Designated Representative for CAIR NOx Sources
FACILITY	6NYCRR 244-8	63	Monitoring and Reporting CAIR NOx Allowances
FACILITY	6NYCRR 245-1	64	CAIR SO2 Trading Program General Provisions
FACILITY	6NYCRR 245-2	65	CAIR Designated Representative for CAIR SO2 Sources
FACILITY	6NYCRR 245-8	66	Monitoring and Reporting for CAIR SO2 Trading Program
FACILITY	6NYCRR 246.11 (a)	109	



FACILITY	6NYCRR 246.11 (b)	110	
FACILITY	6NYCRR 246.11 (c)	111	
FACILITY	6NYCRR 246.11 (d)	112	
FACILITY	6NYCRR 246.11 (e)	113	
FACILITY	6NYCRR 246.3 (b) (1)	102	
FACILITY	6NYCRR 246.5 (b)	103	Mercury Reduction Program Facility-wide Limits and Requirements for Existing Facilities
FACILITY	6NYCRR 246.7 (b) (1)	104	Requirements for Installation, Certification, and Data Accounting
FACILITY	6NYCRR 246.8 (c) (1)	105	Initial Certification Procedures for CEMS
FACILITY	6NYCRR 246.8 (c) (2)	106	Recertification Procedures for CEMS
FACILITY	6NYCRR 246.8 (c) (3)	107	Approval Process for Monitoring Certification and Recertification
FACILITY	6NYCRR 246.9 (a)	108	Missing Data Procedures and Out of Control Periods for CEMS

Applicability Discussion:

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

ECL 19-301.

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

6NYCRR Part 200-6

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

6NYCRR Part 200-7

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

6NYCRR Part 201-1.4

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

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-3.2(a)



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

6NYCRR Part 201-3.3(a)

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

6NYCRR Part 201-6

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

6NYCRR 201-6.5(a)(4)

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

6NYCRR 201-6.5(a)(7)

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

6NYCRR 201-6.5(a)(8)

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

6NYCRR Part 201-6.5(c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time



and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

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

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

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

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

6NYCRR 201-6.5(d)(5)

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

6NYCRR Part 201-6.5(e)

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

6NYCRR 201-6.5(f)(6)

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

6NYCRR Part 202-1.1

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

6NYCRR Part 202-2.1

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

6NYCRR Part 202-2.5

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



6NYCRR Part 211-.2

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

6 NYCRR Part 211.3

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

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.

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

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements

In addition to Title V, DUNKIRK STEAM GENERATING STATION has been determined to be subject to the following regulations:

40CFR 50

40 CFR Part 50 sets the National Primary and Secondary Ambient Air Quality Standards for the nation. Pursuant to the *State of New York v. Niagara Mohawk Power Corporation, et al.*, 02-CV-0024S (Consent Decree entered June 6, 2005), the permittee modeled sulfur dioxide (SO₂) emissions from the plant which showed exceedances of the National Ambient Air Quality Standards (NAAQS). In turn, the plant must now meet a 2.5 lb SO₂/mmBtu 1-hour emission limit and a 2.07 lb SO₂/mmBtu daily 24-hr emission limit to avoid modeled exceedances of the SO₂ NAAQS. These limits are in this permit and are more restrictive than the daily 5.0 lb SO₂/mmBtu emission limit in 6 NYCRR Part 225-1, Fuel Composition and Use - Sulfur Limitations.

Using the daily 24-hour average emission limit the model predicted SO₂ emissions do not exceed the primary 24-hour NAAQS for SO₂ listed in 40 CFR Part 50.4. Using the 1-hour average emission limit, the model predicted SO₂ emissions do not exceed the short term secondary 3-hour NAAQS for SO₂ listed in 40 CFR Part 50.5.

40CFR 60-Y



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 6 NYCRR Subpart 201-6.

CAM applies to the particulate (PM) emissions from the three boiler stacks at Dunkirk. Each stack uses an electrostatic precipitator (ESP) to control PM emissions. The ESP CAM conditions in this permit use opacity and ESP voltage to evaluate the operation of the ESP's and particulate loading. When the fabric filters are installed (boilers 1 & 2 by December 20, 2009, and boilers 3 & 4 by June 30, 2009) the plant will follow the CAM equivalent measures in the Utility Boiler NSPS, 40 CFR Part 60 subpart Da.

CAM applies to the existing flyash silo emission points because the pre-control emissions were estimated to be more than 100 tons per year, so a CAM condition is in the permit. Actual emissions are estimated to be less than 100 tpy. CAM applicability will be evaluated for the trona handling system when more information is available. Based on estimates provided by the facility the pre-control emissions from the activated carbon storage and transport system will be less than 100 tons per year, so it is not subject to CAM.

40CFR 64 .8

This citation lists the elements of a Quality Improvement Plan (QIP). A QIP may be required if a permittee has a number of exceedances or excursions of its Compliance Assurance Monitoring (CAM) program during during a reporting period.

40CFR 72-A.6 (a) (1)

This section references a table containing the list of utilities affected by Phase I of Title IV of the Clean Air Act.

6NYCRR 201-6.5 (d) (1)

This citation requires the permit to contain compliance schedules proposed to bring the facility into compliance. The permit conditions for this citation reduce the annual sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions in a step-wise manner through 2013 for SO₂ and through 2012 for NO_x. This schedule is from the Consent Decree (02-CV-0024S) issued by the United States Court for the Western District of New York on June 6, 2005 which settled allegations that the Dunkirk Steam Generating Station and the Huntley Steam Generating Station (Town of Tonawanda, Erie County) made changes that made them subject to the New Source Review (NSR, 6 NYCRR 231-2) and Prevention of Significant Deterioration (PSD, 40 CFR Part 52.21) programs.

6NYCRR 204-1.6

This condition requires the designated representative of the permittee to make submissions for the NO_x Budget Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor during the ozone season, May 1st to September 30th, annually.

6NYCRR 204-4.1

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

6NYCRR 204-7.1

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



6NYCRR 204-8.1

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

6NYCRR 204-8.2

This condition covers the procedures for initially certifying and recertifying the monitoring systems of the unit meet the requirements of the NO_x 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 NO_x Budget Program 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 condition requires that emission data be submitted in an electronic format quarterly.

6NYCRR 204-8.7

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

6NYCRR 212.4(a)

This rule requires compliance with the degree of control specified in Tables 2, 3 and 4 for new (after July 1, 1973) process emission sources.

6NYCRR 212.4(c)

This rule requires existing sources (in operation after July 1, 1973) of solid particulates with environmental rating of B or C which are not subject to Table 5 "Processes for which Permissible Emission Rate is Based on Process Weight, to be limited to an particulate emission rate not to exceed 0.050 grains per dry standard cubic foot.

6NYCRR 212.6(a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all 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. This regulation limits the sulfur in coal to no more than 1.9 lbs of S/mmBtu for a 3-month average, 1.7 lbs S/mmBtu for an annual average, 2.0 percent S by weight for fuel oil (Federally enforceable in the State Implementation Plan), and 1.5 percent S by weight for fuel oil (state only enforceable).

6NYCRR 225-2.3(b)(1)

This regulation requires that each piece of equipment which fires Waste Fuel A demonstrate, at a minimum, 99% combustion efficiency in burning Waste fuel A.

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). This only applies to the four coal boilers.



6NYCRR 227-1.2 (b)

This regulation requires the total heating capacity connected to a stack to be used to determine the permissible particulate emission rate.

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. This regulation requires the permittee to install, use, and maintain a Continuous Opacity Monitoring System (COMS).

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 227-1.7 (a)

This regulation requires any stationary combustion installation described in section 6 NYCRR 227-1.2 of this Part, to provide pertinent emissions data upon request by the Department. This permit requires periods of excess opacity to be reported promptly, within 48 hours, to the Department.

6NYCRR 227-2.4 (a)

This condition lists the Nitrogen Oxide (NOx) emission limitations for very large boilers (>250 mmBtu/hr).

6NYCRR 227-2.5 (b)

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

The approved NRG averaging plan, prepared by Air Resources Group, LLC, is dated February 25, 2000 and covers the following NRG facilities: Dunkirk Station, Huntley Station, Arthur Kill, Astoria Gas Turbines, and the Oswego Station. This plan along with the States approval letter dated August 30, 2000 is incorporated into this permit by reference.

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 ADR 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 237-4.1

This item specifies the requirements of the compliance certification report for the ADR NOx Budget Program.

6NYCRR 237-7.1

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



6NYCRR 237-8

This item requires the owners and operators of an ADR 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 requires the owners and operators of each Acid Deposition Reduction (ADR) 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 ADR 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 ADR SO2 Budget authorized account representative.

6NYCRR 238-4.1

This section lists all of the requirements for the submission of the compliance certification report for the ADR SO2 Budget program.

6NYCRR 238-7.1

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

6NYCRR 238-8

This condition requires the owner or operator of the ADR SO2 Budget facility to comply with the reporting and record keeping requirements of 40 CFR Part 75.

6NYCRR 243-1.6 (c)

This citation explains the general provisions of the Clean Air Interstate Rule (CAIR) NOx Ozone Season Trading Program. This ozone season NOx cap and trade program runs from May 1 through September 30 each year, starting in 2009. Each source shall hold a tonnage equivalent in CAIR NOx Ozone Season allowances that is not less than the total tons of NOx emissions for the ozone season.

6NYCRR 243-1.6 (d)

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

6NYCRR 243-1.6 (e)

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

6NYCRR 243-2.1

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

6NYCRR 243-8.1



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

6NYCRR 243-8.3

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

6NYCRR 243-8.5 (d)

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

6NYCRR 243-8.5 (e)

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

6NYCRR 244-1

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

6NYCRR 244-2

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

6NYCRR 244-8

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

6NYCRR 245-1

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

6NYCRR 245-2

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

6NYCRR 245-8

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

6NYCRR 246 .11 (a)

This citation requires a mercury reduction program facility to comply with the record keeping requirements of



6NYCRR Part 246.11 and of 40 CFR 75.84(a) through (c) of the Acid Rain Program.

6NYCRR 246 .11 (b)

This citation requires mercury reduction program facilities to comply with the reporting requirements of 6 NYCRR 246.11 and of 40 CFR 75.84(d) through (f) of the Acid Rain Program.

6NYCRR 246 .11 (c)

This citation requires mercury reduction program facilities to submit an application when the certification testing is completed.

6NYCRR 246 .11 (d)

This citation requires mercury reduction program facilities to submit quarterly reports electronically that include mercury emissions, heat input and other required information in the manner specified in 40 CFR 75.84(f). The reports for sources subject to the Acid Rain Program or the Clean Air Interstate Rule (CAIR) for oxides of nitrogen or sulfur dioxide shall include the applicable data required by 40 CFR 75 subparts F through H and 6 NYCRR 246.7 through 246.13.

6NYCRR 246 .11 (e)

This citation requires mercury reduction program facilities to submit a compliance certification statement in support of each quarterly report. It also lists the information that must be certified.

6NYCRR 246 .3 (b) (1)

This citation requires mercury reduction program facilities to conduct two emission tests for speciated mercury compounds. One test must be completed before August 1, 2008, and the other before July 1, 2009.

6NYCRR 246 .5 (b)

This citation limits a mercury reduction program facility's annual mercury emissions and describes the emission averaging method.

6NYCRR 246 .7 (b) (1)

This citation requires mercury reduction program facilities to have a certified mercury monitoring system by certain dates.

6NYCRR 246 .8 (c) (1)

This citation states the procedures that a mercury reduction facility must follow to initially certify their mercury monitoring system.

6NYCRR 246 .8 (c) (2)

This citation states the procedures that a mercury reduction facility must follow to recertify their mercury monitoring system.

6NYCRR 246 .8 (c) (3)

This citation states the process that a mercury reduction facility must follow to initially certify or recertify their mercury monitoring system.

6NYCRR 246 .9 (a)

This citation states that if a mercury monitoring system at a mercury reduction facility fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR 75, than data shall be substituted using the applicable missing data procedures in 40 CFR 75 subpart D.

Compliance Certification

Summary of monitoring activities at DUNKIRK STEAM GENERATING STATION:



Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
FACILITY	67	work practice involving specific operations
FACILITY	68	work practice involving specific operations
U-00004	83	monitoring of process or control device parameters as surrogate
FACILITY	69	record keeping/maintenance procedures
FACILITY	70	monitoring of process or control device parameters as surrogate
U-00001/00001	75	monitoring of process or control device parameters as surrogate
U-00001/00001	76	monitoring of process or control device parameters as surrogate
U-00002/00002	77	monitoring of process or control device parameters as surrogate
U-00002/00002	78	monitoring of process or control device parameters as surrogate
U-00003/00003	80	monitoring of process or control device parameters as surrogate
U-00003/00003	81	monitoring of process or control device parameters as surrogate
FACILITY	23	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	24	record keeping/maintenance procedures
FACILITY	25	record keeping/maintenance procedures
FACILITY	27	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	28	record keeping/maintenance procedures
FACILITY	29	record keeping/maintenance procedures
FACILITY	34	record keeping/maintenance procedures
FACILITY	35	record keeping/maintenance procedures
FACILITY	36	record keeping/maintenance procedures
U-00004	117	record keeping/maintenance procedures
U-00008	118	record keeping/maintenance procedures
FACILITY	87	intermittent emission testing
U-00001/00001	114	intermittent emission testing
U-00002/00002	115	intermittent emission testing
U-00003/00003	116	intermittent emission testing
FACILITY	37	monitoring of process or control device parameters as surrogate
FACILITY	38	monitoring of process or control device parameters as surrogate
FACILITY	39	monitoring of process or



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Permit ID: 9-0603-00021/00030

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U-00004	82	control device parameters as surrogate monitoring of process or control device parameters as surrogate
FACILITY	40	work practice involving specific operations
FACILITY	41	work practice involving specific operations
FACILITY	88	work practice involving specific operations
FACILITY	89	work practice involving specific operations
FACILITY	42	work practice involving specific operations
FACILITY	43	monitoring of process or control device parameters as surrogate
FACILITY	44	record keeping/maintenance procedures
FACILITY	45	monitoring of process or control device parameters as surrogate
FACILITY	47	record keeping/maintenance procedures
FACILITY	48	monitoring of process or control device parameters as surrogate
FACILITY	49	monitoring of process or control device parameters as surrogate
FACILITY	50	monitoring of process or control device parameters as surrogate
FACILITY	51	record keeping/maintenance procedures
FACILITY	91	record keeping/maintenance procedures
FACILITY	93	record keeping/maintenance procedures
FACILITY	95	record keeping/maintenance procedures
FACILITY	96	record keeping/maintenance procedures
FACILITY	97	record keeping/maintenance procedures
FACILITY	99	record keeping/maintenance procedures
FACILITY	101	record keeping/maintenance procedures
FACILITY	63	record keeping/maintenance procedures
FACILITY	66	record keeping/maintenance procedures
FACILITY	109	record keeping/maintenance procedures
FACILITY	110	record keeping/maintenance procedures
FACILITY	111	record keeping/maintenance procedures
FACILITY	112	record keeping/maintenance procedures
FACILITY	113	record keeping/maintenance procedures
FACILITY	102	record keeping/maintenance procedures
FACILITY	103	continuous emission monitoring (cem)
FACILITY	107	record keeping/maintenance procedures

Basis for Monitoring



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

2. Permit conditions that list 6 NYCRR Part 201-6 as the applicable requirement limit annual SO₂ and NO_x emissions from the Dunkirk Plant and the Huntley Plant combined. The limits arise from *State of New York v. Niagara Mohawk Power Corporation, et al.*, 02-CV-0024S (Consent Decree entered June 6, 2005).

3. Permit conditions that list 6 NYCRR Part 204 (NO_x Budget Trading Program) or one of its subparts of the applicable requirement, limit emissions of oxides of nitrogen (NO_x) from the boilers during the ozone season, which is between May 1 and September 30. A NO_x 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 6 NYCRR Part 212 (General Process Emission Sources) as the applicable requirement limit particulate and opacity emissions from non-combustion sources, and gaseous emissions from other non-regulated sources. Opacity (visible emissions) is monitored from the coal handling and processing equipment. The trona, activated carbon and new flyash silo emission points will be subject to the opacity and particulate limits of Part 212, so monitoring conditions are included in this permit. Estimated ammonia slip emissions from the boilers were estimated and modeling indicated they were below the Air-Guide 1 level. Emission testing will compare actual ammonia slip to the estimated value.

5. Permit conditions that list 6 NYCRR Part 225-1 (Fuel Composition and Use - Sulfur Limitations) as the applicable requirement, limit the sulfur content of the coal, distillate oil, and waste fuel A combusted at the facility. Sulfur emissions are monitored by SO₂ CEMS. The distillate oil is delivered with the sulfur content analysis, and the waste fuel A is sampled periodically for compliance. The short term solid fuel sulfur contents limit was replaced with two more restrictive limits so that the SO₂ emission modeling does not exceed the National Ambient Air Quality Standards in 40 CFR PART 50. See the Part 50 paragraph below for more details.

6. Permit conditions that list 6 NYCRR 227-1 (Stationary Combustion Installations) as the applicable requirement, limits the particulate and opacity emissions from the boilers. The plant uses Continuous Opacity Monitoring system (COMS) to monitor opacity and conducts annual emission testing for particulates. As part of the Compliance Assurance Monitoring (CAM) program in 40 CFR Part 64, the plant also evaluates the daily average opacity to opacity action levels developed from historical opacity data. The plant also evaluates ESP voltages. If the opacity or voltage exceed an action level then the plant must monitor the situation, take corrective actions to return opacity to an acceptable level, or shutdown the problematic boiler. To reduce opacity for the Excess Opacity Consent Order (1999072229) and other pollutants, the plant will replace the ESP's with fabric filters. The project should be completed by June 30th, 2009 for boilers 3 and 4, and by December 30th, 2009. The Opacity Reduction Program from the Consent Order is contained in the permit.

7. Permit conditions that list 6 NYCRR 227-2 (Reasonably Available Control Technology (RACT) for Oxides of Nitrogen (NO_x)) as the applicable requirement, limit the emissions of NO_x in pounds per million Btu (lb/mmBtu) from the boilers. This plant is part of the approved NRG NO_x RACT averaging plan, prepared by Air Resources Group, LLC, that is dated February 25, 2000 and includes the following NRG facilities: Dunkirk Station, Huntley Station, Arthur Kill, Astoria Gas Turbines, and the Oswego Station. The averaging plan calculates the allowed NO_x emissions from all the sources based on the NO_x RACT emission limits and compares that to the actual emissions from all the plants. If the actual emissions are less than the allowed all the plants are in compliance. During the ozone season, May through September, the emissions are based on daily averages, and during the non-ozone season, October through April, a 30-day average is used. The emissions are monitored with a NO_x CEMS in each stack. The record keeping and monitoring requirements are prescribed by the regulation. Since this plant is also subject to the Acid Rain Program (40 CFR Part 75) the CEMS must follow Part 75 to demonstrate compliance with NO_x RACT.



8. Permit conditions that list 40 CFR Part 50 (National Ambient Air Quality Standards (NAAQS) as the applicable requirement, limit the short term SO₂ emissions so that the modeled SO₂ emissions do not exceed the NAAQS for SO₂. The plant must meet a 2.5 lb SO₂/mmBtu 1-hour emission limit and a 2.07 lb SO₂/mmBtu daily 24-hr emission limit to avoid modeled exceedances of the SO₂ NAAQS. Using the daily 24-hour average emission limit the model predicted SO₂ emissions do not exceed the primary 24-hour NAAQS for SO₂ listed in 40 CFR Part 50.4. Using the 1-hour average emission limit, the model predicted SO₂ emissions do not exceed the short term secondary 3-hour NAAQS for SO₂ listed in 40 CFR Part 50.5. These limits are more restrictive than the daily 5.0 lb SO₂/mmBtu emission limit in 6 NYCRR Part 225-1, Fuel Composition and Use - Sulfur Limitations, so the 5.0 lb SO₂/mmBtu limit was removed from this permit.

9. Permit conditions that list 40 CFR Part 64, (Continuous Assurance Monitoring, CAM) as the applicable requirement require the plant to continuously monitor opacity and ESP voltage so there is confidence that the particulate emissions are in compliance. The boiler PM limits are in 6 NYCRR Part 227-1. CAM also requires annual PM compliance testing. CAM applies to PM from the boilers because they have a potential to emit more than 100 tons of PM annually, use a control device and do not have a continuous emission monitoring system. CAM does not apply to NO_x even though it uses a staged combustion to control NO_x, because the plant has NO_x CEMS.

CAM applies to the existing flyash silo emission points because the precontrol emissions were estimated to be more than 100 tons per year, so a CAM condition is in the permit. Actual emissions are estimated to be less than 100 tpy. CAM applicability will be evaluated for the trona handling system when more information is available. Based on estimates provided by the facility the precontrol emissions from the activated carbon storage and transport system will be less than 100 tons per year, so it is not subject to CAM.

10. Permit conditions that list 40 CFR Part 60 subpart Y (New Source Performance Standards, (NSPS) for Coal Processing Plants) as the applicable requirement limit the particulate emissions from the coal handling, crushing, and moving operations by limiting the opacity.

11. Permit conditions that list 6 NYCRR 237 (Acid Deposition Reduction NO_x Budget Trading Program) as the applicable requirement, limit the emissions of Oxides of Nitrogen (NO_x) in tons per year from the boilers during the non-ozone season (September 1 to April 30). The emissions are monitored with a NO_x CEMS in the stack. The record keeping and monitoring requirements are prescribed by the regulation.

12. Permit conditions that list 6 NYCRR 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 boilers on an annual basis. The emissions are monitored through fuel use and fuel analysis for sulfur content. The record keeping and monitoring requirements are prescribed by the regulation.

13. The State's CAIR (Clean Air Interstate Rule) rules regulate emissions of NO_x during the ozone season (May 1 through September 30th) starting in 2009 (6NYCRR Part 243), annual emissions of NO_x starting in 2009 (6NYCRR Part 244), and annual emissions of SO₂ starting in 2010 (6NYCRR Part 245). The facility must possess at least as many tons of emission allocations as it emitted tons of NO_x and SO₂. The CAIR program is intended to replace the State Acid Deposition Reduction Programs (6NYCRR Part 237 and 238) and the NO_x Budget Trading Program (6NYCRR Part 204).

13. Permit conditions that list 6 NYCRR 243 (CAIR NO_x Ozone Season Trading Program) as the applicable requirement, limit the emissions of NO_x in tons per ozone season (May 1 through September 30th) from the boilers annually, starting in 2009. The emissions are monitored with a NO_x CEMS in the stack. The record keeping and monitoring requirements are prescribed by the regulation.

14. Permit conditions that list 6 NYCRR 244 (CAIR NO_x Annual Trading Program) as the applicable requirement, limit the emissions of NO_x in tons per year from the boilers starting in year 2009. The emissions are monitored with a NO_x CEMS in the stack. The record keeping and monitoring requirements are prescribed by the regulation.



15. Permit conditions that list 6 NYCRR 245 (CAIR SO₂ Trading Program) as the applicable requirement, limit the emissions of SO₂ in tons per year from the boilers annually, starting in year 2010. The emissions are monitored with a SO₂ CEMS in the stack. The record keeping and monitoring requirements are prescribed by the regulation.

16. Permit conditions that list 6 NYCRR 246 (Mercury Reduction Program for Coal-Fired Electric Utility Steam Generating Units) as the applicable requirement, limit the emissions of mercury from the boilers starting in year 2010. The emissions are monitored with a mercury CEMS in each stack. The record keeping and monitoring requirements are prescribed by the regulation.

New York State Department of Environmental Conservation



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