



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

Facility Identification Data

Name: NORTH RIVER WASTEWATER TREATMENT PLANT

Address: 725 W 135TH ST

NEW YORK, NY 10031

Owner/Firm

Name: NYC DEPT OF ENVIRONMENTAL PROTECTION

Address: 96-05 HORACE HARDING EXPWY 5TH FL

CORONA, NY 11368, USA

Owner Classification: Municipal

Permit Contacts

Division of Environmental Permits:

Name: ELIZABETH A CLARKE

Address: NYSDEC - REGION 2

47-40 21ST ST

LONG ISLAND CITY, NY 11101-5407

Phone:7184824997

Division of Air Resources:

Name: PARESH SHAH

Address: NYSDEC - REGION 2

47-40 21ST ST

LONG ISLAND CITY, NY 11101

Air Permitting Contact:

Name: NYC-DEP NORTH RIVER WPCP

Address: 725 W 135TH ST

NEW YORK, NY 10031

Phone:7185955050

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 is a permit modification application for the North River WWTP Part 201 Title V permit to do the following:

1. Shut-down the plant's existing five (5) 1,700 brake horsepower (bhp) Enterprise model DGSR-46 pump engines and five (5) 940 bhp Mirrlees Blackstone KP5 Major blower engines. These 10 existing tri-fuel



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

engines are to be removed from Emission Unit 1--COMB.

2. Install five (5) new 3.37 megawatt (MW) spark ignition reciprocating internal combustion engine generators that will be interconnected with the Con Edison electrical supply. Up to four of the five cogeneration engines will operate at any one time (13.5 MW maximum), with the fifth as a standby unit. The new cogeneration engines will operate on both anaerobic digester gas and natural gas and will be equipped with oxidation catalyst for carbon monoxide (CO), volatile organic compound (VOC), and non-criteria pollutant emissions control. The anaerobic digester gas will be pretreated to remove siloxanes, sulfur, and moisture prior to being sent to the engines to improve engine and catalyst performance. The new cogeneration engines will be housed in the existing engine room and will exhaust through the existing pump engine stacks, with physical stack parameters such as location, height, and diameter remaining unchanged. The new cogeneration engines are to be permitted under a new Emission Unit 1-COGEN.

3. Install a 10.3 mmBtu/hr thermal oxidizer used to exhaust the waste gas from the pretreatment system. The thermal oxidizer will exhaust out one of the existing blower engine stacks with physical stack parameters such as location, height, and diameter remaining unchanged. The new thermal oxidizer is to be permitted with the new cogeneration engines under emission unit 1-COGEN.

4. Remove the plant's two existing emergency turbine generators from Emission Unit 1--COMB.

5. Install four (4) new 2 MW interim diesel emergency generators for use during the construction period to provide back-up power to the plant during emergencies. Once the cogeneration plant is installed and operating, these four emergency generators will be removed. The emergency generators are to be permitted with the new cogeneration engines and the thermal oxidizer under Emission Unit 1-COGEN.

6. Create emission reduction credits (ERCs) from the shut-down of the existing pump and blower engines.

7. Remove facility requirements to have continuous opacity monitors installed. With the shut-down and removal of the existing pump and blower engines, the facility is no longer required to have a COMs; all COMs requirements are requested to be removed from the permit.

With this modification, the plant's existing boilers, trailer mounted 2000 kilowatt (KW) emergency generator, 200 KW emergency Blackstart generator, waste gas burner, wastewater treatment processes, and odor control equipment remain unchanged.

With the new cogeneration plant, actual criteria and non-criteria pollutant emissions from the WWTP are all expected to be lower than existing plant emissions. This modification proposes to limit nitrogen oxide (NOx), VOC, CO, and particulate matter (PM10 /PM2.5) below the Non-Attainment New Source Review (NANSR) and Prevention of Significant Deterioration (PSD) thresholds, therefore Part 231 requirements do not apply.

Attainment Status

NORTH RIVER WASTEWATER TREATMENT PLANT is located in the town of MANHATTAN in the county of NEW YORK.

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



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	MODERATE NON-ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	SEVERE NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor.

Facility Description:

The North River WWTP is a municipal wastewater treatment plant owned and operated by the New York City Department of Environmental Protection (DEP) and serves approximately 550,000 people on the west side of Manhattan. The plant is a secondary treatment plant with a design dry weather flow of 170 million gallons per day (MGD), and a peak wet weather flow of 340 MGD.

The Plant has the following equipment and operations:

- Five (5) existing 1,700 bhp tri- fuel internal combustion engines mechanically coupled to five sewage pumps which pump sewage to the plant (Emission Sources PENG1, PENG2, PENG3, PENG4, PENG5). These engines are capable of firing digester gas and natural gas with #2 ultra-low sulfur distillate (ULSD) fuel oil pilot, or ULSD fuel oil alone. These engines are to be shut-down and removed from the Plant and replaced by the new cogeneration engines.

- Five (5) existing 940 bhp tri-fuel internal combustion engines mechanically coupled to five blowers which feed air to the plant’s aeration tanks (Emission Sources BENG1, BENG2, BENG3, BENG4, BENG5). These engines are capable of firing digester gas and natural gas with ULSD fuel oil pilot, or ULSD fuel oil alone. These engines are to be shut-down and removed from the Plant and replaced by the new cogeneration engines.

- One (1) recently installed (year 2011) 2000 HP electrical blower. This 2000 HP electrical blower is powered by utility power and does not have any emissions.

- Three (3) 31.4 mmBtu/hr and one (1) 8.4 mmBtu/hr York-Shipley boilers (Emission Sources BLER1, BLER2, BLER3, BLER4) to provide heat and hot water to the facility. These boilers are capable of firing digester gas, natural gas and ULSD fuel oil. However, per the DEP’s NOx RACT Compliance Plan (dated December 30, 2011), these boilers are limited to operation on natural gas or digester gas during normal operation. ULSD fuel oil will only be used during emergency conditions when there is no digester gas or natural gas available or for intermittent maintenance testing.

- One (1) waste sludge digester gas burner (Emission Source WGBR1) for emergency flaring of excessive sludge digester gas.

- Two (2) 2,800 KW emergency turbine generators (Emission Sources TURG1, TURG2), which are to be shut-down and removed from the Plant once the cogeneration Plant is in operation.



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

- Two (2) emergency engine generators; one (1) 2,000 KW trailer-mounted emergency engine generator (Emission Source EGEN1), and one (1) 200 KW Blackstart engine generator (Emission Source BENG1). These emergency generators provide emergency power support to achieve the State Pollutant Discharge Elimination System (SPDES) permit required minimum wastewater treatment and disinfection in the event the plant loses utility power.

The plant has the following wastewater treatment processes and their associated equipment. Emissions from these processes depend on the concentrations of pollutants of concern in the plant's influent of which the plant does not have complete control. The emissions from these processes are remaining unchanged.

Headworks

Influent Channels

Primary settling tanks

Activated sludge aeration tanks

Activated sludge aeration tanks effluent mixed liquor channels

Final settling tanks

Chlorination contact tanks

Sludge thickeners

Sludge digesters

Sludge storage tank

Wiggins sludge digester gas holder

Mixed liquor channels

Improvements are being made to the equipment associated with the sludge thickeners, sludge digesters, and Wiggins sludge digester gas holder. All the processes are covered except a small portion of the final settling tanks, and the air from these processes is collected & vented to the plant's odor control systems prior to being exhausted to the atmosphere. The plant has three (3) 2-stage odor control systems by location, North, West and South, consisting of nineteen (19) wet chemical scrubbers, and fifty six (56) activated carbon absorbers. The wet scrubbers use chemicals to achieve design H₂S removal efficiency at high H₂S concentrations but could achieve adequate H₂S removal efficiency by using less or no chemicals at normal or low H₂S inlet concentration.

Permit Structure and Description of Operations

The Title V permit for NORTH RIVER WASTEWATER TREATMENT PLANT

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.



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

NORTH RIVER WASTEWATER TREATMENT PLANT is defined by the following emission unit(s):

Emission unit 1COGEN - This emission unit is comprised of five (5) new 3.37 megawatt (MW) spark ignition reciprocating internal combustion engine generators (Emission Sources COGN1,COGN2,COGN3,COGN4, and COGN5) that will be interconnected with the Con Edison electrical supply. Up to four of the five engines will operate at any one given time (13.5 MW maximum), with the fifth as a standby unit. The engines will operate on both digester gas and natural gas. The new cogeneration engines will be housed in the existing engine room and will exhaust through the existing pump engine stacks, with physical stack parameters such as location, height and diameter remaining unchanged.

Catalytic oxidation will be used to control emissions from the new cogeneration engines. Impurities present in the digester gas fuel such as siloxanes and sulfur create silica and sulfides during the combustion process and would potentially damage the catalytic oxidizer. Therefore, these impurities are required to be removed from the digester gas fuel prior to its combustion in the engines in order to protect the downstream oxidation catalyst. Pressure swing adsorption (PSA) technology will be used to remove these impurities. A byproduct gas stream is produced during PSA which will be treated using thermal oxidation (TO). This emission unit includes a 10.3 mmBtu/hr thermal oxidizer which would exhaust through one of the existing blower engine stacks.

In addition, this unit includes four (4) 2 MW interim diesel emergency generators to be installed during the construction period to provide back up power to the plant during emergencies and will exhaust through the existing turbine generator stacks. Once the cogeneration plant is in operation, these four emergency generators will be removed.

Existing emission points ENGP1, ENGP2, ENGP3, ENGP4, and ENGP5 are the existing pump engine stacks which will be used to exhaust the new cogeneration engines. Emission point ENGB1 is an existing blower engine stack which will be used to exhaust the new thermal oxidizer. Existing emission points EMTG1 and EMTG2 are the existing emergency turbine generator stacks which will be used to exhaust the interim emergency generators during the construction period.

Emission unit 1COGEN is associated with the following emission points (EP):

CGNB1, CGNP1, CGNP2, CGNP3, CGNP4, CGNP5, CGTG1, CGTG2

Process: COD is located at Building MAIN - cogen engines on either digester gas or blend of digester gas and natural gas.

Process: CON is located at Building MAIN - new cogen engines solely on natural gas.

Process: INT is located at Building MAIN - this process includes operation of the four diesel interim emergency generators used during the construction period to provide back up power to the plant during power emergencies. the process will be removed once the cogeneration plant is in operation.

Process: TOC is located at Building MAIN - thermal oxidizer

Emission unit 1-COMB - This Unit includes the following combustion sources and their associated equipment:



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

Five (5) Delaval Transamerican 1700 HP dual fuel internal combustion engines mechanically coupled to five sewage pumps which pump sewage to the plant. These engines fire primarily a mixture of digester gas and natural gas with #2 fuel oil pilot fuel in normal operation and exhaust to the atmosphere via individual stacks through the roof into the rooftop NYS Riverbank State Park.

Five (5) Mirrlees Blackstone 940 HP dual fuel internal combustion engines mechanically coupled to five blowers which feed air to the plant's aeration tanks. These engines fire primarily a mixture of digester gas and natural gas with #2 fuel oil pilot fuel in normal operation and exhaust to the atmosphere via individual stacks through the roof into the rooftop NYS Riverbank State Park.

The facility has recently installed (year 2011) a 2000HP electrical blower to the pool of blowers. This 2000HP electrical blower is powered by utility power and does not have any emission.

Three (3) 31.4 mmBtu/hr and one (1) 8.4 mmBtu/hr York-Shipley boilers to provide heat and hot water to the facility. These boilers primarily fire natural gas or sludge digester gas in normal operation and exhaust to atmosphere via three (3) stacks through the roof into the rooftop NYS Riverbank State Park. Only during curtailment period and for exercise, these boilers may fire fuel oil.

One (1) waste sludge digester gas burner to flare excessive sludge digester gas.

Four (4) emergency generators: two (2) 2,800 KW emergency turbine generator, one (1) 2,000 KW trailer-mounted emergency engine generator, and one (1) 200 KW blackstart engine generator. These emergency generators, each to operate no more than 500 hrs., provide critical emergency power support to achieve the State Pollutant Discharge Elimination System (SPDES) permit required minimum wastewater treatment and disinfection in the event the plant loses utility power. The two turbine generators exhaust to the atmosphere via individual stacks through the roof into the rooftop NYS Riverbank State Park. The trailer-mounted 2000 KW emergency engine generator is also located on the plant's east roadway and exhaust from this emergency engine generator is piped to the main building exterior 70 feet away, below the level of the rooftop NYS Riverbank State Park. The 200 kw black start engine generator has a six inch diameter exhaust pipe routed across service road A to the outside of the bldg. through the center of the open archway.

Emission unit 1-COMB is associated with the following emission points (EP):

EMBG1, EMEG1, EMTG1, EMTG2, ENGB1, ENGB2, ENGB3, ENGB4, ENGB5, ENGP1, ENGP2, ENGP3, ENGP4, ENGP5, FLARE, MBLR1, MBLR2, MBLR3

Process: BED is located at Building MAIN - This process includes operation of the five (5) blower



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

engines in the Main Building (MAIN) on backup #2 fuel oil. These blower engines are directly connected to blowers providing process air for wastewater treatment aeration tanks.

These five (5) Mirrlees-Blackstone K5 engines BENG1, BENG2, BENG3, BENG4 and BENG5 are each rated 940 HP and exhaust through their own exhaust stacks ENGB1, ENGB2, ENGB3, ENGB4 and ENGB5, respectively.

The plant is removing existing equipment and replacing with new equipment, with the construction sequence as follows: remove the first engine, electrify the pump, install the new engine generator and make operational. This sequence will continue til all the existing engines are removed. The replacement and resulting increase and decrease in emissions all occur within the 5 year contemporaneous period for compliance with NSR/PSD.

This process will continue to operate till the cogen plant is fully operational and pump engines are shut down and removed.

Process: BEG is located at Building MAIN - This process includes operation of the five (5) blower engines in the Main Building (MAIN) on primary gaseous fuel (sludge digester gas or natural gas, or blend) with #2 fuel oil pilot. These blower engines are directly connected to blowers providing process air for wastewater treatment aeration tanks.

These five (5) Mirrlees-Blackstone K5 engines BENG1, BENG2, BENG3, BENG4 and BENG5 are each rated 940 HP and exhaust through their own exhaust stacks ENGB1, ENGB2, ENGB3, ENGB4 and ENGB5, respectively.

The plant is removing existing equipment and replacing with new equipment, with the construction sequence as follows: remove the first engine, electrify the pump, install the new engine generator and make operational. This sequence will continue til all the existing engines are removed. The replacement and resulting increase and decrease in emissions all occur within the 5 year contemporaneous period for compliance with NSR/PSD.

This process will continue to operate till the cogen plant is fully operational and pump engines are shut down and removed.

Process: BLR is located at Building MAIN - This process includes operation of the plant's three (3) York-Shibley boilers with input capacity of 31.4 mmBtu/hr and one (1) York-Shibley boiler with input capacity of 8.4 mmBtu/hr, all of them capable of firing natural gas, digester gas or #2 fuel oil. These boilers are to meet the plant's space heating and wastewater treatment's sludge heating demand. Natural gas is the main fuel and oil is used only in emergency purpose. Per DEP's NOx RACT plan of December 2011, these boilers are limited to operate on natural or digester gas during normal operation. Number 2 fuel oil will only be used during emergency conditions when there is no gas is available or for intermittent maintenance testing.

The exhaust from the four (4) boilers is vented to atmosphere via three (3) stacks, MBLR1, MBLR2 and MBLR3, through the roof into the rooftop NYS Riverbank State Park. Restricted with three (3) stacks, BLER2 and BLER3 share MBLR2, BLER1 and BLER4 have their own stacks, MBLR1 and MBLR3.



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

Process: FLA is located at Building MAIN - This process includes operation of the waste gas burners in the Waste Gas Flare Tower. At times digester gas produced by the plant is more than the demand of the plant's combustion processes, particularly in the summer. The excess sludge digester gas will be flared at the waste gas burner.

The plant has one John Zink waste digester gas burners WGBR and has its own exhaust FLARE rated at 1160 scfm. The thruput quantity of 248,400 MMBTU/Yr heat input is based on 414.3 MMCF total digester gas produced for fiscal year 2005.

Process: GNR is located at Building MAIN - This process includes operation of the plant's emergency generator(s).

The plant's existing emergency turbine generator TURG1 and TURG2 are each rated 2800 KW and fires #2 fuel oil. These existing emergency generators are located in the Main Building (MAIN) and exhausts via their own stacks EMTG1 and EMTG2 through the roof into the rooftop NYS Riverbank State Park. These emergency turbine generators provide power in the event of a commercial power supply outage and will be operated less than 500 hrs per year, and will not participate in any load sharing program CDRP/PLM. Under severe circumstances, if operation of these units are necessary to avoid potential black outs which may threaten public safety and health, these units will be limited to operate at loads that are in compliance with 40 cfr 60, subpart GG limits. These emergency generators are being removed. This process will continue to operate until the cogen plant is fully operational. Once emergency generators are shut down and removed, this will be removed.

There is an additional 2000 KW trailer-mounted emergency engine generator for backup, in case the failure of the two (2) existing emergency turbine generators. The emergency engine generator is located at the corner of east roadway and service road B. The exhaust from this emergency engine generator would be piped to the main building exterior 70 feet away, below the level of the rooftop NYS Riverbank State Park.

There is a 200 KW black-start engine generator used to kick start the emergency turbine generators. The 200 kW black-start engine generator has a six (6) inch diameter exhaust pipe routed across service road A to the outside of the building through the center of the open archway.

Process: PED is located at Building MAIN - This process includes operation of the five (5) pump engines in the Main Building (MAIN) on backup #2 fuel oil. These pump engines are directly connected to sewage pumps.

These five (5) Delaval Transamerican R-46 engines, PENG1 and PENG2 PENG3, PENG4 and PENG5 are each rated 1700 HP, exhaust through their own exhaust stacks ENGP1, ENGP2, ENGP3, ENGP4 and ENGP5, respectively.

The plant is removing existing equipment and replacing with new equipment, with the construction sequence as follows: remove the first engine, electrify the pump, install the new engine generator and make operational. This sequence will continue til all the existing engines are removed. The replacement and resulting increase and decrease in emissions all occur within the 5 year contemporaneous period for compliance with NSR/PSD.

This process will continue to operate till the cogen plant is fully operational and pump engines are shut



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

down and removed.

Process: PEG is located at Building MAIN - This process includes operation of the five (5) pump engines in the Main Building (MAIN) on primarily gaseous fuel (sludge digester gas or natural gas, or blend) with #2 fuel oil pilot. These pump engines are directly connected to sewage pumps.

These five (5) Delaval Transamerican R-46 engines, PENG1 and PENG2 PENG3, PENG4 and PENG5 are each rated 1700 HP, exhaust through their own exhaust stacks ENGP1, ENGP2, ENGP3, ENGP4 and ENGP5, respectively.

The plant is removing existing equipment and replacing with new equipment, with the construction sequence as follows: remove the first engine, electrify the pump, install the new engine generator and make operational. This sequence will continue til all the existing engines are removed. The replacement and resulting increase and decrease in emissions all occur within the 5 year contemporaneous period for compliance with NSR/PSD.

This process will continue to operate till the cogen plant is fully operational and pump engines are shut down and removed.

Emission unit 2WWTRE - This Unit includes the following wastewater treatment processes and their associated equipment. Emissions from these processes depend on the concentrations of pollutants of concern in the plants influent of which the plant does not have complete control.

- Headworks
- Influent channels
- Primary settling tanks
- Activated sludge aeration tanks
- Activated sludge aeration tanks effluent mixed liquor channels
- Final settling tanks
- Chlorination contact tanks
- Sludge thickeners
- Sludge digesters
- Sludge storage tank
- Wiggins sludge digester gas holder

All the processes are covered except small portion of the final settling tank, and the air from these processes is collected & vented to the plants odor control systems prior to being exhausted to atmosphere. The plant has three (3) 2-stage odor control systems by location, North, West and South, consisting of nineteen (19) wet chemical scrubbers, and fifty four (54) activated carbon adsorbers. There are also additional nine (9) carbon vessels at various locations within the plant. Under the plant's ongoing WP-164/Contract 35 North River WPCP Process Optimization and Odor Minimization Construction, these 9 carbon vessels will removed and emissions from these locations will be conveyed to the plant's North or South odor control systems for control.

Emission unit 2WWTRE is associated with the following emission points (EP):



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

NRTH1, NRTH2, SUTH1

Process: ART is located at Building AERATION - This process is the plant activated sludge aeration (ART) consisting of five (5) aeration tanks (AERTK) (330 feet X 74.6 feet X 29.2 feet) and the waste sludge wet well. In this process, the effluent from the primary settling treatment section is mixed with activated sludge solids and air. These aeration tanks provide the detention time required for the activated sludge to absorb the organic matter in the wastewater. Compressed air is discharged through the tanks to provide mixing and an aerobic environment. After a set mixing period, the mixture flows to the final settling tanks, where the solids are flocculated, settled and collected. Emissions from this process are controlled by the North Odor Control (NTHOC) System which currently consists of eight (8) wet chemical scrubbers and 22 carbon adsorbers (294,000 acfm total). Under Contract 35, additional standby units will be installed and therefore, the NTHOC System will consist of (8) wet chemical scrubbers and 24 carbon adsorbers that will discharge to a common plenum that conveys the treated air to two (2) large exhaust stacks (NRTH1 and NRTH2). The maximum exhaust flow rates from NRTH1 and NRTH2 are 222,000 acfm (per stack).

The total thruput is based on the design average dry weather flow of 170 MGD.

Process: CCT This process is the plant chlorine contact tanks (CCT) disinfection process consisting of four (4) chlorination tanks CHLTK (639 feet X 28.5 feet X 8 feet) and required disinfection of the plant effluent. The wastewater from the final settling tanks flows to the chlorine contact tanks where sodium hypochlorite is added into the wastewater to destroy and kill the harmful disease-causing organisms and thereby to protect the receiving waters. Emissions from this process are controlled by the South Odor Control (STHOC) System which currently consists of five (5) wet chemical scrubbers and 12 carbon adsorbers (171,000 acfm total). Under Contract 35, the STHOC System will consist of seven (7) wet chemical scrubbers and 18 carbon adsorbers that will discharge to one (1) large exhaust stack (SUTH1). The total exhaust flow rate with the additional scrubbers and carbon adsorbers from the STHOC stack (SUTH1) is 213,750 acfm.

The total thruput is based on the design average dry weather flow of 170 MGD.

Process: FST is located at Building MAIN - This process is the plant final settling tanks (FST) consisting of sixteen (16) final settling tanks (FINTK) (4 Bays, 250 feet X 74 feet X 10.9 feet) and the two (2) mixed liquor channels which feed the final settling tanks. The purpose of this final settling process is two fold: settle out microorganisms and activated sludge solid waste generated during the aeration process to produce a clarified effluent, and to collect the settled activated sludge for conveyance back to the aeration tanks. The two mixed liquor channels are covered and the air is vented to eight (8) small carbon adsorbers which exhaust in the plenum area above the plant but below the slab of the State Park. Emissions from this process are controlled by the South Odor Control (STHOC) System which currently consists of five (5) wet chemical scrubbers and 12 carbon adsorbers (171,000 acfm total). Under Contract 35, the STHOC System will consist of seven (7) wet chemical scrubbers and 18 carbon adsorbers that will discharge to one (1) large exhaust stack (SUTH1). The total exhaust flow rate with the additional scrubbers and carbon adsorbers from the STHOC stack (SUTH1) is 213,750 acfm.

The total thruput is based on the design average dry weather flow of 170 MGD.

Process: GHT The process consists of the plants sludge digester gas storage process (GHT). Digester gas produced in the digester tanks will be stored in the 135,000 ft³ Wiggins Gas Holder (WGHTK) for later use at combustion units. Fugitive emissions from this tank are controlled by the South Odor Control



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

(STHOC) System which currently consists of five (5) wet chemical scrubbers and 12 carbon adsorbers (171,000 acfm total). Under Contract 35, the STHOC System will consist of seven (7) wet chemical scrubbers and 18 carbon adsorbers that will discharge to one (1) large exhaust stack (SUTH1). The total exhaust flow rate with the additional scrubbers and carbon adsorbers from the STHOC stack (SUTH1) is 213,750 acfm.

Process: MXL is located at Building MAIN - The process consists of the plants mixed liquor channel process (MXL). Odors identified emitting from the mixed liquor channels are primarily caused by the aeration of the channels used to keep the mixed liquor in suspension. Currently, air emitted from this process area will be treated by eight (8) existing carbon adsorbers. Under Contract 35, the (8) existing carbon adsorbers will be removed and the emissions from this process will be controlled by the South Odor Control (STHOC) System, which will consist of seven (7) wet chemical scrubbers and 18 carbon adsorbers that will discharge to one (1) large exhaust stack (SUTH1). The total exhaust flow rate with the additional scrubbers and carbon adsorbers from the STHOC stack (SUTH1) is 213,750 acfm.

The total thruput is based on the design average dry weather flow of 170 MGD.

Process: PHW is located at Building MAIN - This process is the plants headworks (PHW) including the plant's six (6) influent bar screens and influent channels in the plants Main Building (MAIN). The bar screens consist of upright bars spaced one to three inches apart. The primary purpose of the bar screening is to remove large pieces of trash (rags, sticks, newspapers, cans, etc.) for the protection of the main sewage pumps and other equipment. Emissions from this process are controlled by the North Odor Control (NTHOC) System which currently consists of eight (8) wet chemical scrubbers and 22 carbon adsorbers (294,000 acfm total). Under Contract 35, additional standby units will be installed and therefore, the NTHOC System will consist of (8) wet chemical scrubbers and 24 carbon adsorbers that will discharge to a common plenum that conveys the treated air to two (2) large exhaust stacks (NRTH1 and NRTH2). The maximum exhaust flow rates from NRTH1 and NRTH2 are 222,000 acfm (per stack).

The total thruput is based on the design average dry weather flow of 170 MGD.

Process: PST is located at Building MAIN - This process is the plant primary settling tanks (PST) consisting of eight (8) primary settling tanks PRITK (6 Bays, 187.5'X85.8'X11.5'). Primary settling is a process in which the solid particles carried in raw sewage are removed by gravity under quiescent conditions in the primary settling tanks. In addition, the primary settling tanks are used to separate and remove floating materials and scum. Solids and grit collected in the tanks are removed as a thin sludge by continuous pumping. Each primary settling tank is equipped with sludge collectors, dipping weirs, scum removal equipment, inlet sluice gate overflow weirs. The PST process is covered and the emissions are controlled by four (4) wet chemical scrubbers and twelve (12) carbon adsorbers of the West Odor Control (WSTOC) System (150,000 acfm total). The treated air of this system is sent to the NTHOC exhaust plenum to two (2) large exhaust stacks (NRTH1 and NRTH2).

The total thruput is based on the design average dry weather flow of 170 MGD.

Process: SDA is located at Building SLUDGE - This process is the plant's Sludge Anaerobic Digester (SAD) process including eight (8) sludge digestion tanks (DIGTK) each is 200,000 ft³. After sludge gravity thickening, for making it safer for the environment, the sludge is placed in oxygen-free tanks called digesters. Digesters are heated to at least 95o F for between 15 - 20 days stimulating the growth of anaerobic bacteria which consume organic material in the sludge. In the digesters, sludge is converted into water, carbon dioxide and methane gas. The methane gas is often used as an energy source



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

to operate boilers or engines. Fugitive emissions from the digester relief valve are controlled by the South Odor Control (STHOC) System which currently consists of five (5) wet chemical scrubbers and 12 carbon adsorbers (171,000 acfm total). Under Contract 35, the STHOC System will consist of seven (7) wet chemical scrubbers and 18 carbon adsorbers that will discharge to one (1) large exhaust stack (SUTH1). The total exhaust flow rate with the additional scrubbers and carbon adsorbers from the STHOC stack
The digested sludge is pumped from these digestion tanks to the dewatering building.

Process: SST is located at Building SLUDGE - This process is the plant's Sludge Storage Tanks (SST) process including one (1) 120,000 ft³ sludge storage tank (SSTK) and the return sludge overflow boxes & wells. Emissions from this process are controlled by the South Odor Control (STHOC) System which currently consists of five (5) wet chemical scrubbers and 12 carbon adsorbers (171,000 acfm total). Under Contract 35, the STHOC System will consist of seven (7) wet chemical scrubbers and 18 carbon adsorbers that will discharge to one (1) large exhaust stack (SUTH1). The total exhaust flow rate with the additional scrubbers and carbon adsorbers from the STHOC stack (SUTH1) is 213,750 acfm.

Process: STG is located at Building SLUDGE - This process is the plant's Sludge Gravity Thickening (SGT) process including ten (10) 40,000 ft³ sludge gravity thickener tanks SGTTK. The primary and final settling tanks' sludge (approximately 99% water) is concentrated in these gravity thickening tanks. The water is sent back to the head of the plant or aeration tanks for additional treatment. Emissions from this process are controlled by the South Odor Control (STHOC) System which currently consists of five (5) wet chemical scrubbers and 12 carbon adsorbers (171,000 acfm total). Under Contract 35, the STHOC System will consist of seven (7) wet chemical scrubbers and 18 carbon adsorbers that will discharge to one (1) large exhaust stack (SUTH1). The total exhaust flow rate with the additional scrubbers and carbon adsorbers from the STHOC stack (SUTH1) is 213,750 acfm.

Title V/Major Source Status

NORTH RIVER WASTEWATER TREATMENT PLANT is subject to Title V requirements. This determination is based on the following information:

Facility has potential to emit Nox emissions of major /TV category.

Program Applicability

The following chart summarizes the applicability of NORTH RIVER WASTEWATER TREATMENT PLANT 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)	YES
NSPS	YES
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

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.



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

Compliance Status

Facility is in compliance with all requirements.

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis

of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code

Description

4952

SEWERAGE SYSTEMS

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

1-03-005-02

EXTERNAL COMBUSTION BOILERS -
COMMERCIAL/INDUSTRIAL
COMMERCIAL/INSTITUTIONAL BOILER -
DISTILLATE OIL
10-100MMBTU/HR **

2-02-002-04

INTERNAL COMBUSTION ENGINES - INDUSTRIAL
INDUSTRIAL INTERNAL COMBUSTION ENGINE -
NATURAL GAS

2-02-004-01

Reciprocating: Cogeneration
INTERNAL COMBUSTION ENGINES - INDUSTRIAL
INDUSTRIAL INTERNAL COMBUSTION LARGE BORE
ENGINE

2-02-004-02

Diesel
INTERNAL COMBUSTION ENGINES - INDUSTRIAL
INDUSTRIAL INTERNAL COMBUSTION LARGE BORE
ENGINE

2-03-007-02

Dual Fuel (Oil/Gas)
INTERNAL COMBUSTION ENGINES -
COMMERCIAL/INSTITUTIONAL
COMMERCIAL/INSTITUTIONAL IC ENGINE -
DIGESTER GAS

2-04-003-02

RECIPROCATING IC ENGINE: POTW DIGESTER GAS
INTERNAL COMBUSTION ENGINES - ENGINE
TESTING
INTERNAL COMBUSTION ENGINE: ENGINE TESTING
- TURBINE

2-04-004-02

Diesel/Kerosene
INTERNAL COMBUSTION ENGINES - ENGINE
TESTING
INTERNAL COMBUSTION ENGINE: ENGINE TESTING
- RECIPROCATING ENGINE

5-01-007-07

Diesel/Kerosene
SOLID WASTE DISPOSAL - GOVERNMENT



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

	SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-20	POTW: HEADWORKS SCREENING SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-31	POTW: PRIMARY SETTLING TANK SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-40	POTW: DIFFUSED AIR ACT SLUDGE SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-60	POTW: SECONDARY CLARIFIER SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-71	POTW: CHLORINE CONTACT TANK SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-81	POTW: GRAVITY SLUDGE THICKENER SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-89	POTW: ANAEROBIC DIGESTER SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT
5-01-007-99	SLUDGE DIGESTER GAS FLARE SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT OTHER NOT CLASSIFIED

Facility Emissions Summary

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

Cas No.	Contaminant Name	PTE
----------------	-------------------------	------------

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

	lbs/yr	Range
000079-34-5	1,1,2,2-TETRACHLOROETHANE	> 0 but < 10 tpy
000076-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	>= 2.5 tpy but < 10 tpy
000120-82-1	1,2,4-TRICHLOROBENZENE	> 0 but < 10 tpy
000107-06-2	1,2-DICHLOROETHANE	> 0 but < 10 tpy
000108-38-3	1,3 DIMETHYL BENZENE	> 0 but < 10 tpy
000106-99-0	1,3-BUTADIENE	> 0 but < 10 tpy
000091-58-7	2-CHLORONAPHTHALENE	>= 2.5 tpy but < 10 tpy
000108-10-1	2-PENTANONE, 4-METHYL	> 0 but < 10 tpy
000208-96-8	ACENAPHTHYLENE	> 0 but < 10 tpy
000075-07-0	ACETALDEHYDE	> 0 but < 10 tpy
000120-12-7	ANTHRACENE	> 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
000106-46-7	BENZENE, 1,4-DICHLORO-	> 0 but < 10 tpy
000095-50-1	BENZENE, 1,2-DICHLORO	>= 2.5 tpy but < 10 tpy
000095-47-6	BENZENE, 1,2-DIMETHYL	> 0 but < 10 tpy
000541-73-1	BENZENE, 1,3-DICHLORO	>= 2.5 tpy but < 10 tpy
000192-97-2	BENZO (E) PYRENE	>= 2.5 tpy 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
007440-41-7	BERYLLIUM	> 0 but < 10 tpy
000075-27-4	BROMODICHLOROMETHANE	>= 2.5 tpy but < 10 tpy
000075-25-2	BROMOFORM	> 0 but < 10 tpy
007440-43-9	CADMIUM	> 0 but < 10 tpy
0NY750-00-0	CARBON DIOXIDE	>= 250 tpy but < 75,000 tpy
000630-08-0	EQUIVALENTS	
	CARBON MONOXIDE	>= 100 tpy but < 250 tpy
000056-23-5	CARBON TETRACHLORIDE	> 0 but < 10 tpy
000108-90-7	CHLOROBENZENE	> 0 but < 10 tpy
000124-48-1	CHLORODIBROMOMETHANE	>= 2.5 tpy but < 10 tpy
000067-66-3	CHLOROFORM	> 0 but < 10 tpy
007440-47-3	CHROMIUM	> 0 but < 10 tpy
018540-29-9	CHROMIUM (VI)	> 0 but < 10 tpy
000218-01-9	CHRYSENE	> 0 but < 10 tpy
000053-70-3	DIBENZ [A, H] ANTHRACENE	> 0 but < 10 tpy
000075-71-8	DICHLORODIFLUOROMETHANE	>= 2.5 tpy but < 10 tpy
000075-09-2	DICHLOROMETHANE	> 0 but < 10 tpy
000071-55-6	ETHANE, 1,1,1-TRICHLORO	> 0 but < 10 tpy
000079-00-5	ETHANE, 1,1,2-TRICHLORO	> 0 but < 10 tpy
000075-34-3	ETHANE, 1,1-DICHLORO-	> 0 but < 10 tpy
000106-93-4	ETHANE, 1,2-DIBROMO	> 0 but < 10 tpy
000075-00-3	ETHANE, CHLORO	> 0 but < 10 tpy
000156-60-5	ETHENE, 1,2-DICHLORO	>= 2.5 tpy but < 10 tpy



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

000156-59-2	ETHENE, 1,2-DICHLORO-	>= 2.5 tpy but < 10 tpy
000075-35-4	ETHENE,1,1-DICHLORO	> 0 but < 10 tpy
000100-41-4	ETHYLBENZENE	> 0 but < 10 tpy
000050-00-0	FORMALDEHYDE	>= 10 tpy
007439-92-1	LEAD	> 0 but < 10 tpy
000075-69-4	METHANE, TRICHLOROFLUORO-	>= 2.5 tpy but < 10 tpy
000074-83-9	METHYL BROMIDE	> 0 but < 10 tpy
000074-87-3	METHYL CHLORIDE	> 0 but < 10 tpy
000091-20-3	NAPHTHALENE	> 0 but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN	>= 100 tpy but < 250 tpy
0NY075-00-0	PARTICULATES	>= 2.5 tpy but < 10 tpy
000127-18-4	PERCHLOROETHYLENE	> 0 but < 10 tpy
0NY075-02-5	PM 2.5	>= 2.5 tpy but < 10 tpy
0NY075-00-5	PM-10	>= 10 tpy but < 25 tpy
000078-87-5	PROPANE, 1,2-DICHLORO	> 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	>= 10 tpy but < 25 tpy
000108-88-3	TOLUENE	> 0 but < 10 tpy
0NY100-00-0	TOTAL HAP	>= 50 tpy but < 100 tpy
000079-01-6	TRICHLOROETHYLENE	> 0 but < 10 tpy
000075-01-4	VINYL CHLORIDE	> 0 but < 10 tpy
0NY998-00-0	VOC	>= 25 tpy but < 40 tpy
001330-20-7	XYLENE, M, O & P MIXT.	> 0 but < 10 tpy
000106-42-3	XYLENE, PARA-	> 0 but < 10 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department 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 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 and maintained;
- (3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

permit; and

(4) The facility owner 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 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 - 6 NYCRR 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 6 NYCRR 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 201-6.2(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 201-6.2(d)(12)

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

Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.4(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 201-6.4(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 201-6.4(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

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 201-6.4(a)(6)

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

Item I: Severability - 6 NYCRR Part 201-6.4(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 201-6.4(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 201-6.4(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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

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

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

permit.

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

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
-- FACILITY	ECL 19-0301	44	Powers and Duties of the Department with respect to air pollution control
1--COMB/-/BLR	40CFR 60-A.4	37	General provisions - Address
1--COMB/-/BLR	40CFR 60-Dc.48c (a)	38	Reporting and Recordkeeping Requirements.
1--COMB/-/BLR	40CFR 60-Dc.48c (g)	39	Reporting and Recordkeeping Requirements.
1--COMB	40CFR 60-GG	2 -48	Stationary gas turbines over 10 million Btu per hour
1--COMB/-/GNR	40CFR 60-GG	42	Stationary gas turbines over 10 million Btu per hour
1-COGEN/-/INT	40CFR 60-IIII.4205 (b)	2 -38	Emission Standards - 2007 or later
FACILITY	40CFR 60-IIII.4206	2 -15	Emergency Non Fire Pump Stationary CI-IC Engines Displacing < 30 liters/cylinder
1-COGEN/-/INT	40CFR 60-IIII.4207 (b)	2 -39, 2 -40	Stationary Compression Ignition IC Engines - Fuel Requirements beginning October 1, 2010
1-COGEN/-/INT	40CFR 60-IIII.4211 (a)	2 -41	Stationary Compression Ignition Engines - Compliance Requirements
FACILITY	40CFR 60-IIII.4211 (c)	2 -16	Stationary Compression Ignition Engines - Compliance Demonstration
1-COGEN/-/INT	40CFR 60-IIII.4211 (f)	2 -42, 2 -43	Stationary Compression Ignition IC Engines - Emergency Engine



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

FACILITY	40CFR 60-IIII.4214 (b)	2	-17	Operation Notification, Recordkeeping Requirements - Non- emergency stationary CI-IC engines
1-COGEN	40CFR 60-JJJJ	2	-27	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
FACILITY	40CFR 60- JJJJ.4230 (a) (4)	2	-18	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines -
FACILITY	40CFR 63-ZZZZ	2	-19	Applicability Reciprocating Internal Combustion Engine (RICE) NESHAP
FACILITY	40CFR 68	20		Chemical accident prevention provisions
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	10		Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	45, 2	-54	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	2	-6	Recycling and Salvage
FACILITY	6NYCRR 201-1.8	12		Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2 (a)	2	-7	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3 (a)	2	-8	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	22, 35, 36, 2	-12	Title V Permits and the Associated Permit Conditions
1-COGEN/-/COD	6NYCRR 201-6	2 -28, 2 -29, 2 - 30, 2 -31		Title V Permits and the Associated Permit Conditions
1-COGEN/-/CON	6NYCRR 201-6	2 -33, 2 -34, 2 - 35, 2 -36		Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4 (a) (4)	2	-9	General Conditions - Requirement to Provide Information
FACILITY	6NYCRR 201-6.4 (a) (7)	2	-1	General Conditions - Fees
FACILITY	6NYCRR 201-6.4 (a) (8)	2	-10	General Conditions - Right to Inspect
FACILITY	6NYCRR 201-6.4 (c)	2	-2	Recordkeeping and Reporting of
FACILITY	6NYCRR 201-6.4 (c) (2)	2	-3	Compliance Monitoring Records of Monitoring, Sampling



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

FACILITY	6NYCRR 201-6.4 (c) (3) (ii)	2 -4	and Measurement Reporting Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4 (d) (4)	2 -13	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4 (e)	2 -5	Compliance Certification
FACILITY	6NYCRR 201-6.4 (f) (6)	2 -11	Off Permit Changes
FACILITY	6NYCRR 201-7	2 -20	Federally Enforceable Emissions Caps
1-COGEN	6NYCRR 201-7	2 -21, 2 -22, 2 -23, 2 -24, 2 -25	Federally Enforceable Emissions Caps
FACILITY	6NYCRR 202-1	23, 24	Emission Testing, Sampling and Analytical Determinations
FACILITY	6NYCRR 202-1.1	19	Required emissions tests.
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.1	25	General Prohibitions - air pollution prohibited
FACILITY	6NYCRR 211.2	46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 2 -55	General Prohibitions - visible emissions limited.
FACILITY	6NYCRR 212	26, 27, 29, 2 -14	General Process Emission Sources
1--COMB/-/FLA/WGBR1	6NYCRR 212.3 (a)	41	General Process Emission Sources - emissions from existing emission sources
FACILITY	6NYCRR 215.2	9	Open Fires - Prohibitions
FACILITY	6NYCRR 225.1 (a) (3)	32	Sulfur in Fuel Limitations (SIP)
FACILITY	6NYCRR 225-1.2	30	Sulfur in Fuel Limitations.
FACILITY	6NYCRR 225-1.8 (a)	31	Reports, sampling and analysis.
FACILITY	6NYCRR 227.2 (b) (1)	34	Particulate emissions.
FACILITY	6NYCRR 227-1.3 (a)	33	Smoke Emission Limitations.
1-COGEN	6NYCRR 227-1.3 (a)	2 -26	Smoke Emission Limitations.
1--COMB	6NYCRR 227-1.3 (a)	2 -44	Smoke Emission Limitations.
1--COMB/ENGB1	6NYCRR 227-1.3 (a)	43	Smoke Emission Limitations.
1-COGEN/-/COD	6NYCRR 227-2	2 -32	Reasonably available control technology for NOx
1-COGEN/-/CON	6NYCRR 227-2	2 -37	Reasonably available control technology for NOx
1--COMB	6NYCRR 227-2.3 (b)	2 -45	Application requirements.



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

1--COMB	6NYCRR 227-2.4 (c)	2 -46	Mid-size boilers.
1--COMB/-/BLR/BLER1	6NYCRR 227-2.4 (c) (1) (i)	40	1994 NOx RACT presumptive limit.
1--COMB/-/BLR/BLER1	6NYCRR 227-2.4 (c) (1) (ii)	68	2010 NOx RACT presumptive limit.
1--COMB/-/BLR/BLER2	6NYCRR 227-2.4 (d)	64	Small boilers, small combustion turbines, and small stationary internal combustion engines.
1--COMB/-/BED	6NYCRR 227-2.4 (f)	61, 2 -49	Stationary internal combustion engines.
1--COMB/-/BEG	6NYCRR 227-2.4 (f)	62, 63, 2 -50	Stationary internal combustion engines.
1--COMB/-/GNR	6NYCRR 227-2.4 (f)	65, 2 -51	Stationary internal combustion engines.
1--COMB/-/PED	6NYCRR 227-2.4 (f)	66, 2 -52	Stationary internal combustion engines.
1--COMB/-/PEG	6NYCRR 227-2.4 (f)	67, 2 -53	Stationary internal combustion engines.
1--COMB	6NYCRR 227-2.5 (c)	60	Alternative RACT option.
1--COMB	6NYCRR 231-10	2 -47	Emission Reduction Credits (ERCs)
1-COGEN	6NYCRR 231-6	2 -22, 2 -23, 2 -24, 2 -25	Mods to Existing Major Facilities in Nonattainment and Attainment Areas of the State in the OTR
1-COGEN	6NYCRR 231-8	2 -21	Mods to Existing Major Facilities in Attainment Areas (PSD)

Applicability Discussion:

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

ECL 19-0301

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.

6 NYCRR 200.6

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

6 NYCRR 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

6 NYCRR 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.

6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR Subpart 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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 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.

6 NYCRR 202-2.1

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

6 NYCRR 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.

6 NYCRR 211.2

This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

permit the burning of any materials in an open fire.

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, NORTH RIVER WASTEWATER TREATMENT PLANT has been determined to be subject to the following regulations:

40 CFR 60.4

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

40 CFR 60.4205 (b)

This requirement applies to owners and operators of 2007 model year and later emergency stationary CI IC engines with a displacement less than 30 liters/cylinder that are not fire pump engines. An applicable source must comply with the emission standards for new nonroad CI engines for all pollutants (HC, PM, NO_x, NMHC + NO_x and CO) for the same model year and maximum engine power as per 40 CFR 60.4202.

40 CFR 60.4206

This requirement mandates that owners or operators of stationary compression ignition IC engines that achieve the emission standards as required in 40 CFR 60.4204 and 4205 maintain the engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

40 CFR 60.4207 (b)

These conditions states the fuel requirements for compression ignition stationary engines with a displacement of less than 30 liters per cylinder

40 CFR 60.4211 (a)

This regulation states that the owner or operator and must comply with the emission standards specified in 40 CFR 60 Subpart IIII and must operate and maintain the stationary compression ignition internal



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

combustion engine and control device according to the manufacturer's written instructions.

40 CFR 60.4211 (c)

This regulation states that the owner or operator and must comply with the emission standards specified in 40 CFR 60 and must operate and maintain the stationary compression ignition internal combustion engine and control device according to the manufacturer's written instructions.

40 CFR 60.4211 (f)

These conditions state the hour limits for emergency engines operating in nonemergency engine situations

40 CFR 60.4214 (b)

These conditions state the hour limits for emergency engines operating in nonemergency engine situations

40 CFR 60.4230 (a) (4) (i)

Owners and operators of stationary spark ignited internal combustion engines (SI ICE), that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP) are subject to the requirements of 40 CFR 60 Subpart JJJJ.

40 CFR 60.48c (a)

This regulation requires the owner and operator of each affected facility to submit notification of the date of construction or reconstruction, anticipated startup, and actual startup of the facility. The notification must include the following information:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

factor for any fuel or mixture of fuels under 40 CFR 60.42c., or 40 CFR 60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

40 CFR 60.48c (g)

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

40 CFR Part 60, Subpart GG

This is a federal NSPS requirement, for existing turbine generators.

40 CFR Part 60, Subpart JJJJ

This is a federal regulation for new Sparet ignited IC engines

40 CFR Part 63, Subpart ZZZZ

This is for RICE

6 NYCRR 211.1

This regulation requires that no person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.

6 NYCRR 212.3 (a)

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

6 NYCRR 225.1 (a) (3)

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

6 NYCRR 225-1.2

This regulation limits the amount of sulfur present in the fuel burned at the facility.

6 NYCRR 225-1.8 (a)

Upon request the owner or operator of a facility which purchases and fires coal or oil shall submit reports to the commissioner containing a fuel analysis, information on the quantity of the fuel received, burned, and results of any stack sampling, stack monitoring and any other procedures to ensure compliance with the provisions of 6 NYCRR Part 225-1. All records shall be available for a minimum of



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

three years

6 NYCRR 227.2 (b) (1)

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

6 NYCRR 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.

6 NYCRR 227-2.3 (b)

Deadline for application/information submission.

6 NYCRR 227-2.4 (c)

Emission limits for mid-size boilers.

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

Existing NOx RACT presumptive limit that expires on 6/30/14.

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

Future NOx RACT presumptive limit effective 7/1/14.

6 NYCRR 227-2.4 (d)

This section includes NOx RACT requirements for small boilers, small combustion turbines, and small stationary internal combustion engines.

6 NYCRR 227-2.4 (f)

NOx RACT emission limits for stationary internal combustion engines.



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

6 NYCRR 227-2.5 (c)

An Alternate NOX RACT emission limit for the engines at the facility is set to 5.6 grams per break horse power, and is based on the NOx RACT variance file by the owner and approved by DEC.

6 NYCRR Part 212

this is for general process emission

6 NYCRR Subpart 201-7

This regulation sets forth an emission cap that cannot be exceeded by the facility. In this permit that cap is 144 tpy for NOx.

6 NYCRR Subpart 202-1

This subpart of Part 202 establishes the general criteria for verifying emissions by means of emissions sampling, testing and associated analytical determinations.

6 NYCRR Subpart 227-2

This is for NOX RACT

6 NYCRR Subpart 231-10

This subpart outlines the procedures used to create and use emission reduction credits (ERCs).

6 NYCRR Subpart 231-6

This Subpart applies to modifications to existing major facilities in non-attainment areas and attainment areas of the State within the OTR.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

6 NYCRR Subpart 231-8

This subpart applies to modifications to existing major facilities in attainment areas (prevention of significant deterioration (PSD)).

Compliance Certification

Summary of monitoring activities at NORTH RIVER WASTEWATER TREATMENT PLANT:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring

1--COMB/-/BLR	38	record keeping/maintenance procedures
1--COMB/-/BLR	39	record keeping/maintenance procedures
1--COMB	2-48	record keeping/maintenance procedures
1--COMB/-/GNR	42	record keeping/maintenance procedures
1-COGEN/-/INT	2-38	record keeping/maintenance procedures
1-COGEN/-/INT	2-39	work practice involving specific operations
1-COGEN/-/INT	2-40	work practice involving specific operations
1-COGEN/-/INT	2-41	record keeping/maintenance procedures
FACILITY	2-16	record keeping/maintenance procedures
1-COGEN/-/INT	2-42	monitoring of process or control device parameters as surrogate
1-COGEN/-/INT	2-43	monitoring of process or control device parameters as surrogate
FACILITY	2-17	record keeping/maintenance procedures
1-COGEN	2-27	record keeping/maintenance procedures
FACILITY	2-12	record keeping/maintenance procedures
1-COGEN/-/COD	2-28	record keeping/maintenance procedures
1-COGEN/-/COD	2-29	record keeping/maintenance procedures
1-COGEN/-/COD	2-30	intermittent emission testing
1-COGEN/-/COD	2-31	intermittent emission testing
1-COGEN/-/CON	2-33	record keeping/maintenance procedures
1-COGEN/-/CON	2-34	record keeping/maintenance procedures
1-COGEN/-/CON	2-35	intermittent emission testing
1-COGEN/-/CON	2-36	intermittent emission testing
FACILITY	2-4	record keeping/maintenance procedures
FACILITY	2-5	record keeping/maintenance procedures
1-COGEN	2-21	work practice involving specific operations
1-COGEN	2-22	work practice involving specific operations
1-COGEN	2-23	work practice involving specific operations
1-COGEN	2-24	work practice involving specific operations
1-COGEN	2-25	work practice involving specific operations
FACILITY	23	record keeping/maintenance procedures
FACILITY	24	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
FACILITY	47	record keeping/maintenance procedures
FACILITY	48	record keeping/maintenance procedures
FACILITY	49	record keeping/maintenance procedures
FACILITY	50	record keeping/maintenance procedures
FACILITY	51	record keeping/maintenance procedures
FACILITY	52	record keeping/maintenance procedures
FACILITY	53	record keeping/maintenance procedures
FACILITY	54	record keeping/maintenance procedures



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6202-00007/00015

Renewal Number: 1

Modification Number: 2 11/10/2014

FACILITY	2-55	record keeping/maintenance procedures
FACILITY	55	record keeping/maintenance procedures
FACILITY	56	record keeping/maintenance procedures
FACILITY	57	record keeping/maintenance procedures
FACILITY	59	record keeping/maintenance procedures
FACILITY	2-14	record keeping/maintenance procedures
FACILITY	26	record keeping/maintenance procedures
FACILITY	27	record keeping/maintenance procedures
FACILITY	29	record keeping/maintenance procedures
FACILITY	32	work practice involving specific operations
FACILITY	30	record keeping/maintenance procedures
FACILITY	31	work practice involving specific operations
FACILITY	34	intermittent emission testing
FACILITY	33	record keeping/maintenance procedures
1-COGEN	2-26	monitoring of process or control device parameters as surrogate
1--COMB	2-44	monitoring of process or control device parameters as surrogate
1--COMB/ENGB1	43	monitoring of process or control device parameters as surrogate
1-COGEN/-/COD	2-32	intermittent emission testing
1-COGEN/-/CON	2-37	intermittent emission testing
1--COMB	2-45	record keeping/maintenance procedures
1--COMB	2-46	record keeping/maintenance procedures
1--COMB/-/BLR/BLER1	40	intermittent emission testing
1--COMB/-/BLR/BLER1	68	intermittent emission testing
1--COMB/-/BLR/BLER2	64	record keeping/maintenance procedures
1--COMB/-/BED	2-49	intermittent emission testing
1--COMB/-/BED	61	intermittent emission testing
1--COMB/-/BEG	2-50	intermittent emission testing
1--COMB/-/BEG	62	record keeping/maintenance procedures
1--COMB/-/BEG	63	intermittent emission testing
1--COMB/-/GNR	2-51	intermittent emission testing
1--COMB/-/GNR	65	intermittent emission testing
1--COMB/-/PED	2-52	intermittent emission testing
1--COMB/-/PED	66	intermittent emission testing
1--COMB/-/PEG	2-53	intermittent emission testing
1--COMB/-/PEG	67	intermittent emission testing
1--COMB	60	record keeping/maintenance procedures
1--COMB	2-47	record keeping/maintenance procedures

Basis for Monitoring

Facility has cap on its facility wide NOx, CO, VOC, PM emissions in accordance with the New Source review (NSR), 6 NYCRR Part 231 requirements.

Cogen Engines will also be tested for emission factor rating for NOx, CO, VOC and PM, for both fuels, natural and digester gas, in accordance with part 227, 231, 40 cfr 60 subpart JJJJ, NSPS.