



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

Facility Identification Data

Name: OWLS HEAD WASTEWATER TREATMENT PLANT

Address: 6700 SHORE RD

BROOKLYN, NY 11220

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

47-40 21ST ST

LONG ISLAND CITY, NY 11101-5407

Phone:7184824997

Division of Air Resources:

Name: CICYLY T NIRAPPEL

Address: HUNTERS POINT PLAZA

LONG ISLAND CITY, NY 11101

Phone:7184824944

Air Permitting Contact:

Name: DIANE HAMMERMAN

Address: NYCDEP / BWT

96-05 HORACE HARDING EXPWY - 2ND FL

CORONA, NY 11368

Phone:7185954965

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 application for renewal of the Owls Head WWTP Part 201 Air Title V Facility Permit.

The existing Title V air permit is to expire on 2/4/2014.

This renewal application introduces no new source or significant change to the plant's current operation as



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

in the existing Title V permit but incorporates updates of the plant's equipment and engine emissions improvement construction status.

Attainment Status

OWLS HEAD WASTEWATER TREATMENT PLANT is located in the town of BROOKLYN in the county of KINGS.

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

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT
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 Owls Head Wastewater Treatment Plant (OH WWTP) is a publicly owned secondary wastewater treatment plant capable of providing treatment for 120 million gallons of primarily residential wastewater per day in dry weather.

This wastewater treatment plant currently has the following combustion sources and their associated equipment:

Three (3) 3174 Hp Reciprocating Internal Combustion Engines in Pump & Power House. These engines are currently under engine emissions improvement construction and capable of burning 100% #2 ultra-low sulfur fuel oil and digester gas. After completion of the combustion improvement construction, the three engines will fire mainly digester gas or natural gas, with #2 ultra-low sulfur fuel oil pilots.

- One (1) Weil-Mclain 2 mmBtu/hr boilers buring #2 low-sulfur fuel oil in Pump & Power House
- Four (4) Cleaver-Brooks 200 BHP boilers in Pump & Power House
- Two (2) 150BHP White Engine D4800 emergency blackstart generators firing #2 ultra-low sulfur fuel oil for emergency lighting
- Two (2) enclosed waste gas burners to flare excessive sludge digester gas

In June 2011, DEP began construction to improve engine emissions at OH WWTP. The proposed engine emission improvement construction consists of two phases: Phase 1 (Contract OH-85) and Phase 2 (Contract OH-84):

Phase 1 consists of making repairs to and conducting maintenance on the existing equipment and systems.



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

The natural gas supply will be reintroduced to the dual fuel engine generator fuel system as a supplemental fuel source. This will allow the plant to supplement digester gas with natural gas in place of fuel oil. The use of natural gas in the engines is already permitted in the facility's existing Title V permit. This phase would not change engine emissions as it focuses on reconditioning the fuel supply system for digester gas to existing engines.

Under Phase 2, two engine subsystems will be introduced to improve NO_x emissions in order for the engines to meet the NO_x RACT limit under normal operating conditions in the dual fuel mode by burning less diesel fuel oil pilot. The construction of these engine combustion controls includes the following activities:

- i. Replacement of the engine automation system with a state-of-the-art low emissions operation control;
- ii. Upgrading the engine combustion system by installing an electronically controlled, high pressure, common rail fuel injection system. This system will allow the engine to operate with significantly less pilot diesel fuel oil at approximate 1% of total fuel input; and
- iii. Perform routine engine maintenance, including replacement of cylinder liners and other worn engine components.

When any of the plant's existing combustion equipment (including engines, boilers, waste sludge digester gas burners, emergency engine generators and other equipment) or its associated distribution system is not functioning normally or is in need repair, as an operational flexibility, the plant may need to bring in contingent similar equipment through rental contracts or relocation of DEP's equipment from other facilities. Such contingent equipment is not for permanent installation purposes and shall not result in exceeding any established emission limitations. DEP will notify DEC in advance prior to bringing any new equipment onsite; DEP will comply with all other applicable regulations.

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

Headworks

Influent channels

Primary settling tanks

Activated sludge aeration tanks

Final settling tanks

Chlorination contact tanks

Sludge thickeners

Sludge digesters

Sludge storage tank

Wiggins sludge digester gas holder

Permit Structure and Description of Operations

The Title V permit for OWLS HEAD 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



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

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.

OWLS HEAD WASTEWATER TREATMENT PLANT is defined by the following emission unit(s):

Emission unit 1COMBU - This emission unit consists of the plant's combustion equipment processes.

The plant has three (3) Delaval enterprise's DGSR-48 dual fuel engines originally installed in 1988. These engines are each rated 3174 bhp and drive three 2250 kw generators. Each engine exhausts through two stacks. Under normal operations one engine fires digester gas with diesel pilot dual fuel at 2000 KW with 2821 bhp. Natural gas may also be used once available in the future. The engines are currently permitted to operate on diesel fuel, digester gas and natural gas. The engines are currently undergoing emission improvement construction. The construction will restore the natural gas system allowing the plant to supplement digester gas with natural gas, rather than with diesel oil as is the current practice. Exhaust from each of these three engines (ENG01, ENG02, and ENG03) pass through a waste heat recovery boiler and then vented to atmosphere through their own pair of exhaust stacks (ENG1A AND ENG1B, ENG2A, ENG2B, ENG3A AND ENG3B) respectively The engines may be operated in such a manner as to allow the plant to participate in New York State electrical demand reduction program.

The plant's two (2) waste gas burners (flares) burn the excess sludge digester gas. At times that the sludge digester gas produced at the plant is more than the demand of the plant's engines and boilers, the excess sludge digester gas will be burned at the two waste gas burners.

In June 2011, DEP began construction to improve engine emissions at OH WWTP. The proposed engine emission improvement construction consists of two phases: Phase 1 (Contract OH-85) and Phase 2 (Contract OH-84):

Phase 1 consists of making repairs to and conducting maintenance on the existing equipment and systems. The natural gas supply will be reintroduced to the dual fuel engine



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

generator fuel system as a supplemental fuel source. This will allow the plant to supplement digester gas with natural gas in place of fuel oil. The use of natural gas in the engines is already permitted in the facility's existing Title V permit. This phase would not change engine emissions as it focuses on reconditioning the fuel supply system for digester gas to existing engines.

Under Phase 2, two engine subsystems will be introduced to improve NO_x emissions in order for the engines to meet the NO_x RACT limit under normal operating conditions in the dual fuel mode by burning less diesel fuel oil pilot. The construction of these engine combustion controls includes the following activities:

- i. Replacement of the engine automation system with a state-of-the-art low emissions operation control;
- ii. Upgrading the engine combustion system by installing an electronically controlled, high pressure, common rail fuel injection system. This system will allow the engine to operate with significantly less pilot diesel fuel oil at approximate 1% of total fuel input; and
- iii. Performing routine engine maintenance, including replacement of Cylinder liners and other worn engine components.

After completion of the engine improvement construction, three (3) Delaval Enterprise's DGSR-48 dual fuel engines each rated 3174 bhp will drive three 2250 kw generators without drawing any power from the utility grid under normal operating conditions while utilizing all of the available digester gas generated from the facility. In addition, the improvement will allow the engines to meet NO_x RACT limits for dual fuel engines and no longer require an alternative source-specific limit, under 6 NYCRR Part 227-2.5.

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

ENG1A, ENG1B, ENG2A, ENG2B, ENG3A, ENG3B, FLAR1, FLAR2

Process: DIE is located at Building MAIN - This process is a supplemental operation mode to the process DUA. When the engines can't be operated on dual fuel mode, these engines will fire 100% diesel. At all times, at least one engine is kept off-line for standby purposes. The annual total thruput is determined for two engines in operation. These engines drive three 2250 kw generators which provide power to sewage pumps and process air blowers. The engines may be operated in such a manner as to allow the plant to participate in New York state electrical demand reduction program. Exhaust from each of these three engines (ENG01, ENG02, and ENG03) pass through a waste heat recovery boiler and then vented to atmosphere through their own pair of exhaust stacks (ENG1A AND ENG1B, ENG2A AND ENG2B, ENG3A AND ENG3B) respectively.

Process: DUA is located at Building MAIN - This process is the engines' primary operation mode. Under this process, the engines fire dual fuel (sludge digester gas with diesel oil as pilot fuel). Natural gas may also be used once available in future. At all times, at the least one engine is kept off line for standby purposes. The annual total thruput is determined for two engines in operation.



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

These engines drive three 2250 kw generators which provide power to sewage pumps and process air blowers. The engines may be operated in such a manner as to allow the plant to participate in New York State electrical demand reduction program.

Exhaust from each of these three engines (ENG01, ENG02, and ENG03) pass through a waste heat recovery boiler and then vented to atmosphere through their own pair of exhaust stacks (ENG1A AND ENG1B, ENG2A AND ENG2B, ENG3A AND ENG3B) respectively

Under the engine control improvements, the three engine automation sub-systems will be upgraded with the latest version of the "hyper-logic" dual fuel engine automation system, as offered by Hoerbiger Engineering Services or an approved equal design according to specifications developed during preparation of bid documents (design phase). The control improvement work will consist of all removals, installation, design engineering, programming, factory testing, field-testing, and installation as necessary to place into operation a complete state-of-the-art engine automation and fueling system that provides for engine operation with a reduced amount of diesel pilot fuel. The automation system will be fully integrated with and equipped for control of the new electronic fuel injection system and gas controls systems. The control improvements will increase engine fuel efficiency and reduce diesel fuel usage.

Process: FLA is located at Building SLUDGE - This process is the plant's two waste sludge digester gas burners. At times the sludge digester gas produced at the plant is more than the demand of the plant's engines and boilers. The excessive sludge digester gas will be burned at either of the two waste digester gas burners (WGBR1 and WGBR2) and exhausted through their own stacks (FLAR1 and FLAR2).

Emission unit 2WWTRE - This emission unit consists of the plant's waste water treatment, sludge and residual handling processes. These processes include head works, primary settling tank, aeration, final settling, and chlorine contact. Except for the head works the other processes are all outdoors and in large tanks. One passive activated carbon system is connected to the headwork ventilation duct for H₂S control. Emissions from these processes depend on the concentrations of pollutants of concern in the plant's influent over which the plant does not have complete control. Emissions are based on currently available data.

Two 2,000 CFM carbon vessels are used to treat the air from the primary settling tanks as an odor control measure.

This emission unit also consists of the plant's sludge handling processes. These processes include gravity thickening, sludge digestion, sludge storage tanks and sludge digester gas holding tank. Two activated carbon adsorber systems (SGTC1 and SGTC2) are installed at WWTP; each consists of four vessels installed at the gravity thickening process for control of H₂S odor from June through October. A total of twenty (20) passive carbon canisters are installed at sludge digester tanks and storage tank for H₂S odor control purpose.

This emission unit also consists of the plant's grit and scum residual handling and removal processes within the grit and scum building. An activated carbon adsorption vessel is installed to provide to the building ventilation air for H₂S odor control from June through October. The grit and scum building is undergoing a construction to expand the building and add an additional carbon adsorption unit with an exhaust stack installed at the building.



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

Emission unit 2WWTRE is associated with the following emission points (EP):
GSBS1, GSBS2, SGTS1, SGTS2, WWELL

Process: ART This is the plant's wastewater diffused air activated sludge aeration (ART) secondary treatment process. This process includes four diffused air activated sludge aeration tanks (AERTK). 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. Each of these aeration tanks has four "passes". The total thruput is based on dry weather flow.

Process: CCT This is the plant's chlorine contact (CCT) disinfection process. This process includes two chlorine contact tanks. 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. The total thruput is based on dry weather flow.

Process: FST This is the plant's final settling (FS) process. This process includes sixteen 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 total thruput is based on dry weather flow.

Process: GHT This process is the plant's sludge digester gas holding tank (GHT) operation consisting of one (1) sludge digester gas holding tank (GASTK). Digester gas produced in the sludge anaerobic digester tanks will be stored in these tanks for later use at combustion units.

Process: GSB This is the plant's grit and scum handling process (GSB) which consists of the grit and scum handling process in the residual and scum building (GSBL). An activated carbon adsorption unit (GSBC1), which exhausts through its own stack (GSBS1), is installed at the building for H₂S odor control purpose. The grit scum building is undergoing construction to be expanded and an additional carbon adsorption unit (GSBC2) with exhaust stack (GSBS2) is to be installed at the building.

Process: PHW is located at Building MAIN - This process is the plant's pretreatment head works (PHW) process including four bar screening chambers (SCREEN) and influent wet well (WWELL). 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.

A passive activated carbon adsorption unit (WWLOC) is connected to the influent wet well ventilation duct and the total thruput is based on dry weather flow.

Process: PST is located at Building PRIMARY - This process is the plant's wastewater primary settling (PST) process. This process includes four primary settling tanks. Primary settling operation 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 to cyclone digritters. Each primary settling tank is equipped with sludge collectors, dipping weirs, scum removal equipment, inlet sluice gates overflow weirs. The total thruput is based on



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

dry weather flow.

control measure.

Process: SAD This process is the plant's sludge anaerobic digesters (SAD) operation consisting of six cone sludge digester tanks (SADTK). After sludge gravity thickening, making it safer for the environment, the sludge is placed in oxygen-free tanks called digesters. Digesters are heated to at least 95° 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 to operate boilers. Relief valve from each of these digester tanks splits into two 50-gallon canisters filled with activated carbon for H2S odor control.

Process: SGT This process is the plant's sludge gravity thickening (SGT) operation consisting of four (4) 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. Odor emissions from this equipment and ventilation are ducted to two odor control systems (SGTC1 and SGTC2) each with four carbon vessels located in the sludge complex and exhausted through their own stacks (SGTS1 and SGTS2).

Process: SST This process is the sludge storage tanks (SST) process consisting of two sludge storage tanks (DSSTK). Excessive sludge will be stored in these storage tanks. Exhaust from each of these tanks splits into two activated carbon adsorption systems; each has two 50-gallon canisters (a total of 8 canisters) filled with activated carbon for H2S odor control.

Title V/Major Source Status

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

Facility emissions of CO and NOx are more than Major Source thresholds.

Program Applicability

The following chart summarizes the applicability of OWLS HEAD 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	NO
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	YES



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

SIP	YES
-----	-----

NOTES:

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

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

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

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

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

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

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

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

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is in compliance with all requirements.

SIC Codes

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

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

SIC Code

Description

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

2-02-004-01	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION LARGE BORE ENGINE Diesel
2-02-004-02	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION LARGE BORE ENGINE Dual Fuel (Oil/Gas)
5-01-007-07	SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT POTW: HEADWORKS SCREENING
5-01-007-20	SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT POTW: PRIMARY SETTLING TANK
5-01-007-31	SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT POTW: DIFFUSED AIR ACT SLUDGE
5-01-007-40	SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT POTW: SECONDARY CLARIFIER
5-01-007-60	SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT POTW: CHLORINE CONTACT TANK
5-01-007-71	SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

5-01-007-81	TREATMENT 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	Range
		lbs/yr	
000630-08-0	CARBON MONOXIDE		>= 100 tpy but < 250 tpy
000050-00-0	FORMALDEHYDE		> 0 but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN		>= 100 tpy but < 250 tpy
0NY075-00-0	PARTICULATES		>= 25 tpy but < 40 tpy
0NY075-02-5	PM 2.5		>= 25 tpy but < 40 tpy
007446-09-5	SULFUR DIOXIDE		>= 10 tpy but < 25 tpy
0NY100-00-0	TOTAL HAP		>= 10 tpy but < 25 tpy
0NY998-00-0	VOC		>= 10 tpy but < 25 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

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 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.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

- 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 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;

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

- 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 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)

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6102-00005/00017
Renewal Number: 2
04/14/2014

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

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

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

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

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
FACILITY	ECL 19-0301	51	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 52-A.21	23, 24	Prevention of Significant Deterioration
FACILITY	40CFR 63-JJJJJJ	33	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers
FACILITY	40CFR 63-VVV.1586	34	Area Sources Non-Industrial POTW Treatment Plant
FACILITY	40CFR 63-ZZZZ	35	Requirements Reciprocating Internal Combustion Engine (RICE) NESHAP
FACILITY	40CFR 68	19	Chemical accident prevention provisions
FACILITY	40CFR 82-F	20	Protection of

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6102-00005/00017
Renewal Number: 2
04/14/2014

FACILITY	6NYCRR 200.6	1	Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.7	10	Acceptable ambient air quality.
FACILITY	6NYCRR 201-1.4	52	Maintenance of equipment.
FACILITY	6NYCRR 201-1.7	11	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.8	12	Recycling and Salvage
			Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	13	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	14	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	21, 36, 37	Title V Permits and the Associated Permit Conditions
1-COMBU	6NYCRR 201-6	39	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4(a)(4)	15	General Conditions - Requirement to Provide Information
FACILITY	6NYCRR 201-6.4(a)(7)	2	General Conditions - Fees
FACILITY	6NYCRR 201-6.4(a)(8)	16	General Conditions - Right to Inspect
FACILITY	6NYCRR 201-6.4(c)	3	Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.4(c)(2)	4	Records of Monitoring, Sampling and Measurement
FACILITY	6NYCRR 201-6.4(c)(3)(iii)	5	Reporting Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4(d)(4)	22	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4(e)	6	Compliance Certification
FACILITY	6NYCRR 201-6.4(f)(6)	17	Off Permit Changes
FACILITY	6NYCRR 201-7	23, 24, 38	Federally Enforceable Emissions Caps
1-COMBU	6NYCRR 201-7	40, 41, 42	Federally Enforceable Emissions Caps
FACILITY	6NYCRR 202-1.1	18	Required emissions tests.
FACILITY	6NYCRR 202-1.2	25	Notification.
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.1	26	General Prohibitions - air pollution prohibited
FACILITY	6NYCRR 211.2	53	General Prohibitions



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

1-COMBU/-/FLA	6NYCRR 212	48	- visible emissions limited.
1-COMBU/FLAR1/FLA/WDGB1	6NYCRR 212.6(a)	49	General Process Emission Sources - opacity of emissions limited
1-COMBU/FLAR2/FLA/WDGB2	6NYCRR 212.6(a)	50	General Process Emission Sources - opacity of emissions limited
FACILITY	6NYCRR 215.2	9	Open Fires - Prohibitions
FACILITY	6NYCRR 225-1.2(b)	27	Sulfur-in-Fuel Limitations
FACILITY	6NYCRR 225-1.2(g)	28	Sulfur-in-Fuel Limitations
FACILITY	6NYCRR 225-1.2(h)	29	Sulfur-in-Fuel Limitations
FACILITY	6NYCRR 225-1.6(d)	30	Record Availability
FACILITY	6NYCRR 225-1.6(f)	31	Excess Emission Reports
FACILITY	6NYCRR 227.2(b)(1)	32	Particulate emissions.
1-COMBU	6NYCRR 227-1.3	43	Smoke Emission Limitations.
1-COMBU	6NYCRR 227-1.3(a)	44	Smoke Emission Limitations.
1-COMBU/-/DUA	6NYCRR 227-2.4(f)(3)	46	Emission limit for distillate oil fired engines.
1-COMBU/-/DIE	6NYCRR 227-2.5(c)	45	Alternative RACT option.
1-COMBU/-/DUA	6NYCRR 227-2.5(c)	47	Alternative RACT option.
1-COMBU	6NYCRR 231-6	40, 41, 42	Mods to Existing Major Facilities in Nonattainment and Attainment Areas of the State in the OTR

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



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

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

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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

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 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.



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

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 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, OWLS HEAD WASTEWATER TREATMENT PLANT has been determined to be subject to the following regulations:

40 CFR 52.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions;

ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

40 CFR 63.1586

This regulation imposes no control requirements for existing non-industrial POTW treatment plants.

40 CFR Part 63, Subpart JJJJJ

This regulation covers facilities that own or operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195.

40 CFR Part 63, Subpart ZZZZ

Engines are subject to this regulation.



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

6 NYCRR 202-1.2

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

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 212.6 (a)

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

6 NYCRR 225-1.2 (b)

Sulfur-in-fuel limitations for oil or solid fuel fired facilities effective through June 30, 2014.

6 NYCRR 225-1.2 (g)

Sulfur-in-fuel limitations for the purchase of distillate oil on or after July 1, 2014.

6 NYCRR 225-1.2 (h)

Sulfur-in-fuel limitation for the firing of distillate oil on or after July 1, 2016.

6 NYCRR 225-1.6 (d)

This citation requires subject facilities make their records available to the Department for inspection.

6 NYCRR 225-1.6 (f)

This citation requires subject facilities to submit excess emissions reports to the Department.



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

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

This regulation requires a limitation and compliance monitoring for opacity from a 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 227-2.4 (f) (3)

Presumptive NOx RACT emission limit for distillate oil fired stationary internal combustion engines.

6 NYCRR 227-2.5 (c)

NYCRR Part 227-2.5(c): The three lean burn dual fuel engines are subject to the requirements of Part 227-2.4(f) Facility submitted a NOx RACT compliance plan dated June 29, 2004 for their engines and demonstrated that the presumptive NOx emission limit of 2.3 grams/bhp-hr is not feasible since there is no commercially-proven NOx technology for IC engines burning digester gas. The Facility requested higher alternative NOx emission limits for their engines. The proposed permit limits are 6.05 grams/bhp-hr when burning 100% diesel oil and 3.16 grams/bhp-hr on dual fuel (with 10 % tolerance to the stack test results). The request has been granted. NYCDEP must continue to investigate NOx control technologies, and must provide the Department reports on the progress of the investigations and may conduct pilot testing with Department's approval.

6 NYCRR Part 212

This is a recordkeeping requirement for digester gas production and burning.

6 NYCRR Subpart 201-7

This regulation sets forth an emission cap that cannot be exceeded by the facility.

6 NYCRR Subpart 231-6

This Subpart applies to modifications to existing major facilities in non-attainment areas

New York State Department of Environmental Conservation
Permit Review Report



Permit ID: 2-6102-00005/00017
Renewal Number: 2
04/14/2014

and attainment areas of the State within the OTR.

Compliance Certification

Summary of monitoring activities at OWLS HEAD WASTEWATER TREATMENT PLANT:

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

1-COMBU FACILITY	39	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	23	record keeping/maintenance procedures
FACILITY	24	record keeping/maintenance procedures
1-COMBU	40	monitoring of process or control device parameters as surrogate
1-COMBU	41	monitoring of process or control device parameters as surrogate
1-COMBU	42	monitoring of process or control device parameters as surrogate
FACILITY	7	record keeping/maintenance procedures
1-COMBU/-/FLA	48	record keeping/maintenance procedures
1-COMBU/FLAR1/FLA/WDGB1	49	monitoring of process or control device parameters as surrogate
1-COMBU/FLAR2/FLA/WDGB2	50	monitoring of process or control device parameters as surrogate
FACILITY	27	work practice involving specific operations
FACILITY	28	work practice involving specific operations
FACILITY	29	work practice involving specific operations
FACILITY	31	record keeping/maintenance procedures
FACILITY	32	intermittent emission testing
1-COMBU	43	record keeping/maintenance procedures
1-COMBU	44	monitoring of process or control device parameters as surrogate
1-COMBU/-/DUA	46	intermittent emission testing
1-COMBU/-/DIE	45	intermittent emission testing
1-COMBU/-/DUA	47	intermittent emission testing

Basis for Monitoring

NYCRR Part 201-6.4 (c)(3)(ii): This condition clarifies that all reports required by federally enforceable monitoring conditions are to be submitted at least every 6 months on a calendar year basis in order to comply with Title V requirements. The reporting requirement supersedes any of the reporting requirements that may be listed for an individual permit monitoring condition which may have incorrectly listed a reporting period exceeding 6 months. Any monitoring conditions that may have more frequent reporting requirements will remain in effect as displayed in the condition.

NYCRR Part 201-6.4(e): Condition has been added in order to comply with the Title V annual compliance certification requirements and specify the mailing addresses for submitting the compliance



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

reports. It further specifies what constitutes compliance certification with the terms and conditions of the permit.\

Part 225-1.2(b):

Sulfur in distillate fuel oil fired is limited 0.2 % by weight through June 30, 2014.

Part 225-1.2(g)

Sulfur in distillate oil purchased is limited to 0.0015% by weight on or after July 1, 2014.

Part 225-1.2(h)

Sulfur in distillate oil fired is limited to 0.0015% by weight on or after July 1, 2016.

NYCRR 227-1.3(a): Conditions require the facility to comply with the specified opacity limits and requires facility to monitor the stacks for visible emissions on a daily basis when oil is being burned in the engines.

NYCRR Part 227-2.5(c): The three lean burn dual fuel engines are subject to the requirements of Part 227-2.4(f). Facility submitted a NOx RACT compliance plan dated June 29, 2004 for their engines and demonstrated that the presumptive NOx emission limit of 2.3 grams/bhp-hr is not feasible since there is no commercially-proven NOx technology for IC engines burning digester gas. The Facility requested higher alternative NOx emission limits for their engines. The proposed permit limits are 6.05 grams/bhp-hr when burning 100% diesel oil and 3.16 grams/bhp-hr on dual fuel (with 10 % tolerance to the stack test results). The request has been granted. Currently facility is undergoing engine emission control improvement which will enable engine to meet the presumptive NOx emission limit. Therefore, this alternative limit is effective till then.

6 NYCRR Part 227-2.4(f)(2)(ii)(b).

With this proposed engine control improvements NOx emissions will be reduced during the normal operation of the engines while using dual fuel (Process:DUA) to below the 2.3 g/bhp/hr NOx RACT requirement, bringing the engines in compliance with 6 NYCRR § 227-2.4(f)(2)(ii)(b).

NYCRR Part 227.2(b)(1): Conditions establish a particulate limit of 0.10 lbs/MMbtu for all combustion units burning oil. Compliance is demonstrated via a periodic stack test as required under the regulation. The regulation is from the 1972 version of Part 227 which still remains as part of New York's SIP.

6 NYCRR Part 201-7: These 6 NYCR Part 231 capping conditions for NOx and CO are added to the permit in response to DEP's request to make this facility a minor source for PSD purposes. DEP proposed to cap their facility wide NOx and CO emissions at 225 tpy each. Permit emission limits and AP 42 emission factors are used to calculate emissions.

6 NYCRR part 201-7: After the engine control improvements, each of three (3) rated 3174 bhp engines will operate mainly with renewable digester gas through reintroducing digester gas supply to the dual fuel engine generator fuel system and improving the combustion and ignition process to minimize the need for diesel pilot fuel and will rely on its own digester gas supply and natural gas as engine fuel to provide the power demand, currently drawn from the existing grid and/or from burning diesel fuel.

With this improvement, the emissions of NOx, VOC And PM 2.5 will increase, since the plant will be able to burn more digester gas. The 231 analysis for these increases emissions demonstrate that the net



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

Permit ID: 2-6102-00005/00017

Renewal Number: 2

04/14/2014

emission increase of these contaminants are less than the significant net emission increase thresholds, so not a major new source review modification.

VOC: PEP = 15.6 tpy, Contemporaneous creditable increase /ERC = 0, NEI = 15.6 tpy < 25 tpy

PM2.5: PEP = 1.26 tpy, Contemporaneous creditable increase /ERC = 0, NEI = 1.2 tpy < 10 tpy

NOx: PEP = 23.4 tpy, Contemporaneous creditable increase = 0, NEI = 177.3(Emission Unit Potential)-
+ 0 - 153.9(Baseline emissions) = 23.4 tpy < 25 tpy