



**New York State Department of Environmental Conservation**  
Facility DEC ID: 2610100025



After reviewing the WWTP's operation record from 2011 to 2015, DEP has concluded that the above worst case operational scenario was overly conservative and determined that an Air State Facility Permit would be adequate for the operation of this facility.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator:           STEPHEN A WATTS  
  47-40 21ST ST  
  LONG ISLAND CITY, NY 11101-5401

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_



**Notification of Other State Permittee Obligations**

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



**LIST OF CONDITIONS**

**DEC GENERAL CONDITIONS**

**General Provisions**

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

**Facility Level**

- Submission of application for permit modification or renewal -  
REGION 2 HEADQUARTERS



**DEC GENERAL CONDITIONS**  
**\*\*\*\* General Provisions \*\*\*\***  
**GENERAL CONDITIONS - Apply to ALL Authorized Permits.**

**Condition 1: Facility Inspection by the Department**

**Applicable State Requirement: ECL 19-0305**

**Item 1.1:**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

**Item 1.2:**

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

**Item 1.3:**

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**Condition 2: Relationship of this Permit to Other Department Orders and Determinations**

**Applicable State Requirement: ECL 3-0301 (2) (m)**

**Item 2.1:**

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**Condition 3: Applications for permit renewals, modifications and transfers**

**Applicable State Requirement: 6 NYCRR 621.11**

**Item 3.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 3.2:**

The permittee must submit a renewal application at least 180 days before the expiration of permits for Title V and State Facility Permits.

**Item 3.3**

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



**Condition 4: Permit modifications, suspensions or revocations by the Department**  
**Applicable State Requirement: 6 NYCRR 621.13**

**Item 4.1:**

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**\*\*\*\* Facility Level \*\*\*\***

**Condition 5: Submission of application for permit modification or renewal - REGION 2 HEADQUARTERS**  
**Applicable State Requirement: 6 NYCRR 621.6 (a)**

**Item 5.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 2 Headquarters  
Division of Environmental Permits  
1 Hunters Point Plaza, 4740 21st Street  
Long Island City, NY 11101-5407  
(718) 482-4997

**New York State Department of Environmental Conservation**

Permit ID: 2-6101-00025/00100

Facility DEC ID: 2610100025



**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY  
PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: NYC DEPT OF ENVIRONMENTAL PROTECTION  
96-05 HORACE HARDING EXPY FL 5  
CORONA, NY 11368

Facility: NEWTOWN CREEK WASTEWATER TREATMENT PLANT  
329-69 GREENPOINT AVE  
BROOKLYN, NY 11222

Authorized Activity By Standard Industrial Classification Code:  
4952 - SEWERAGE SYSTEMS

Permit Effective Date:

Permit Expiration Date:



## LIST OF CONDITIONS

### FEDERALLY ENFORCEABLE CONDITIONS

#### Facility Level

- 1 40 CFR Part 68: Accidental release provisions.
- 2 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 3 6 NYCRR 201-7.1: Facility Permissible Emissions
- \*4 6 NYCRR 201-7.1: Capping Monitoring Condition
- 5 6 NYCRR Subpart 202-1: Compliance Demonstration
- 6 6 NYCRR Subpart 202-1: Compliance Demonstration
- 7 6 NYCRR 211.1: Air pollution prohibited
- 8 6 NYCRR 211.1: Compliance Demonstration
- 9 6 NYCRR 211.1: Compliance Demonstration
- 10 6 NYCRR 225-1.2: Compliance Demonstration
- 11 40CFR 60, NSPS Subpart IIII: Applicability
- 12 40CFR 60, NSPS Subpart KKKK: Applicability
- 13 40CFR 63, Subpart JJJJJ: Applicability
- 14 40CFR 63, Subpart ZZZZ: Applicability

#### Emission Unit Level

- 15 6 NYCRR 227-1.3 (a): Compliance Demonstration

### STATE ONLY ENFORCEABLE CONDITIONS

#### Facility Level

- 16 ECL 19-0301: Contaminant List
- 17 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 18 6 NYCRR Subpart 201-5: Emission Unit Definition
- 19 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 20 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 21 6 NYCRR 211.2: Visible Emissions Limited
- 22 6 NYCRR 211.2: Compliance Demonstration

#### Emission Unit Level

- 23 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 24 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

NOTE: \* preceding the condition number indicates capping.



**FEDERALLY ENFORCEABLE CONDITIONS**

**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: Sealing - 6 NYCRR 200.5**

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

**Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6**

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

**Item C: Maintenance of Equipment - 6 NYCRR 200.7**

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,



required to operate such device effectively.

**Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2**

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

**Item E: Recycling and Salvage - 6 NYCRR 201-1.7**

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

**Item F: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8**

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

**Item G: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)**

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source 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 which contains emission sources or units subject to 6 NYCRR Subpart 201-3, 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.

**Item H: Proof of Eligibility for Sources Defined as Trivial**



**Activities - 6 NYCRR 201-3.3 (a)**

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source 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 which contains emission sources or units subject to 6 NYCRR Subpart 201-3, 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.

**Item I: Required Emission Tests - 6 NYCRR 202-1.1**

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

**Item J: Open Fires Prohibitions - 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.

**Item K: 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 L: 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.

**FEDERAL APPLICABLE REQUIREMENTS**  
**The following conditions are federally enforceable.**

**Condition 1: Accidental release provisions.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40 CFR Part 68**

**Item 1.1:**

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

- a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;
- b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:
  - 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,
  - 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center  
C/O CSC  
8400 Corporate Dr  
Carrollton, Md. 20785

**Condition 2: Recycling and Emissions Reduction**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 82, Subpart F**

**Item 2.1:**

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

**Condition 3: Facility Permissible Emissions**



**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-7.1**

**Item 3.1:**

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following

Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 0NY210-00-0

PTE: 49,800 pounds per year

Name: OXIDES OF NITROGEN

**Condition 4: Capping Monitoring Condition  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-7.1**

**Item 4.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR 201-6.1

**Item 4.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 4.3:**

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.

**Item 4.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 4.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 4.6:**

The Compliance Demonstration activity will be performed for the Facility.

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Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 4.7:**

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Plant-wide NOx emission is capped below 24.9 tons per year.

The owner or operator shall maintain records of fuel used at the facility and calculate NOx emission (based on the fuel usage) using the following formula:

$$\text{BLER}(0.052) + \text{EBR/IUB} (.118) + \text{TURB}(0.39) + \text{ENGS}(2.65) + \text{FLAR}(0.08) < 49,800 \text{ lbs}$$

Where:

BLER – Boiler operation (9x 29.5 mmBtu/hr heat input), firing digester gas and/or natural gas blend, total fuel used for the process with emission factor of .052 lb/mmBtu

EBR/IUB – Boiler operation (for 3x16.75 mmBtu/hr heat input), firing natural gas, total fuel used for the process with emission factor of .118 lb/mmBtu

TURB– Total emergency turbine generators, diesel heat input, mmBtu/yr, total fuel used for the process with emission factor of .39 lb/mmBtu

ENGS – Total emergency black-start engine generators diesel heat input, mmBtu/yr, total fuel used for the process with emission factor of 7.97 gm/bhp-hr, 2.64 lb/mmBtu

FLAR – Total sludge existing digester gas flare heat input, mmBtu/yr (based on 621,781,000 cft Digester gas production, with heat value of 600 btu/cft, assuming 55% of digester gas will be flared), with emission factor .08 lb/mmBtu

This emission factor should be demonstrated through a stack test, in first year.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 24.9 tons per year



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Monitoring Frequency: ANNUALLY  
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).

**Condition 5: Compliance Demonstration**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 202-1**

**Item 5.1:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 0NY998-00-0 VOC

**Item 5.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emissions from these wastewater treatment related processes vary based on the constituents of the WWTP influent, over which the WWTP has limited control. The emissions are based on wastewater sampling results and processes computer modeling.

For VOC emissions from wastewater treatment related sources, annual emissions will be estimated using TOXCHEM + modeling approach and at the least annually influent sampling results. For the combustion sources, annual emissions will be estimated using fuel usage, source testing data, vendor guarantee and/or published emission factors.

Reference Test Method: epa approved

Monitoring Frequency: ANNUALLY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 6: Compliance Demonstration**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 202-1**

**Item 6.1:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 0NY100-00-0 TOTAL HAP

**Item 6.2:**



Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emissions from the wastewater treatment related processes vary based on the constituents of the plant influent, over which the plant has limited control. The emissions are based on wastewater sampling results and processes computer modeling.

For HAP emissions from wastewater treatment related sources, annual emissions will be estimated using TOXCHEM + modeling approach and at the least annually influent sampling results. For the combustion sources, annual emissions will be estimated using fuel usage, source testing data, vendor guarantee and/or published emission factors.

Reference Test Method: epa 600

Monitoring Frequency: ANNUALLY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 7: Air pollution prohibited  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 7.1:**

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. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

**Condition 8: Compliance Demonstration  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 8.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 8.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Facility shall establish a complaint response procedure to manage complaints related to air emissions from this



facility. The procedure shall be designed to ensure that complaints from officials or neighbors are adequately received and documented, and that appropriate response is taken by the facility. The facility shall:

1. Have a complaint phone line available 24 hours a day, 7 days a week.
2. Investigate any possible causes of any complaint received.
3. Take prompt action to abate any circumstance which is found to be the cause of the complaint.
4. Fully document the complaint, results of investigation, and any action taken.
5. Report in a format acceptable to the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).

**Condition 9: Compliance Demonstration**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 9.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 9.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The WWTP should follow Good Engineering Practices and take precautions to minimize odors. The WWTP shall evaluate the operations and maintenance of odor control systems and keep the systems in compliance. The WWTP must maintain a log on site to record the presence of odors and corrective actions taken in the event of odor complaints and report it to the Department annually.

Monitoring Frequency: ANNUALLY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 10: Compliance Demonstration**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 225-1.2**

**Item 10.1:**

The Compliance Demonstration activity will be performed for the Facility.





**Applicable Federal Requirement:40CFR 63, Subpart JJJJJJ**

**Item 13.1:**

Facilities that are area sources of HAP with industrial, commercial, or institutional boilers must comply with applicable portions of 40 CFR 63 JJJJJJ.

**Condition 14: Applicability**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 63, Subpart ZZZZ**

**Item 14.1:**

Facilities that have reciprocating internal combustion engines must comply with applicable portions of 40 CFR 63 subpart ZZZZ.

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 15: Compliance Demonstration**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 227-1.3 (a)**

**Item 15.1:**

The Compliance Demonstration activity will be performed for the facility:  
The Compliance Demonstration applies to:

Emission Unit: 1-COMBU  
Process: BLR

Emission Unit: 1-COMBU  
Process: BSG

Emission Unit: 1-COMBU  
Process: EBR

Emission Unit: 1-COMBU  
Process: FLA

Emission Unit: 1-COMBU  
Process: OXD

Emission Unit: 1-COMBU  
Process: TRB

**Item 15.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL



DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one-six-minute period per hour of not more than 27 percent opacity.

The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

The permittee will conduct observations of visible emissions from the emission unit, process, etc. to which this condition applies at the monitoring frequency stated below while the process is in operation. The permittee will investigate, in a timely manner, any instance where there is cause to believe that visible emissions have the potential to exceed the opacity standard.

The permittee shall investigate the cause, make any necessary corrections, and verify that the excess visible emissions problem has been corrected. If visible emissions with the potential to exceed the standard continue, the permittee will conduct a Method 9 assessment within the next operating day of the sources associated with the potential noncompliance to determine the degree of opacity and will notify the NYSDEC if the method 9 test indicates that the opacity standard is not met.

Records of visible emissions observations (or any follow-up method 9 tests), investigations and corrective actions will be kept on-site. Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Reference Test Method: EPA Method 9  
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).



**STATE ONLY ENFORCEABLE CONDITIONS**  
**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**  
**This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**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 Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)**

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records.



Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

**Item C: 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.

**STATE ONLY APPLICABLE REQUIREMENTS**

**The following conditions are state only enforceable.**

**Condition 16: Contaminant List  
Effective for entire length of Permit**

**Applicable State Requirement:ECL 19-0301**

**Item 16.1:**

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 007704-34-9  
Name: SULFUR

CAS No: 0NY100-00-0  
Name: TOTAL HAP

CAS No: 0NY210-00-0  
Name: OXIDES OF NITROGEN

CAS No: 0NY998-00-0



Name: VOC

**Condition 17: Malfunctions and start-up/shutdown activities  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR 201-1.4**

**Item 17.1:**

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

**Condition 18: Emission Unit Definition  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 18.1:**

The facility is authorized to perform regulated processes under this permit for:



Emission Unit: 1-COMBU

Emission Unit Description:

This emission unit includes the following combustion sources and their associated equipment: • nine (9) 29.5 mmBtu/hr Cleaver-Brooks CB700-750-125HW boilers (MBLR1, MBLR2, MBLR3, MBLR4, MBLR5, MBLR6, MBLR7, MBLR8 and MBLR9) exhaust through five emission points (MBLRA, MBLRB, MBLRC, MBLRD and MBLRE) for both the space and sludge heating demand

(one boiler will be removed for installation of a thermal oxidizer to destroy those impurities removed from separation of the plant's digester gas);

- three (3) existing 16.8 mmBtu/hr Cleaver Brooks CB 700-400-15 boilers (EBLR1, EBLR2 and EBLR3) exhaust through a emission point (EBLRA) for both the space and sludge heating demand;
- four (4) 46 mmBtu/hr Varec 249 enclosed waste gas flares (FLAR1, FLAR2, FLAR3 and FLAR4) exhaust through their own emission points (FLARA, FLARB, FLARC and FLARD), respectively, to burn excessive digester gas;
- four (4) 58 mmBtu/hr 5MW Solar Taurus 70 emergency turbine generators (TURB1, TURB2, TURB3 and TURB4) exhaust through their own emission points (TURBA, TURBB, TURBC and TURBD), respectively, to provide backup power in the event of emergency, such as service disruption or a black out and may be operated for participation in the New York State Demand Reduction Program;
- two (2) 7.5 mmBtu/hr Cummins QST30-G1 black-start engine generators (BSEG1 and BSEG2) exhaust through their own emission points (BSEGA and BSEGB), respectively, are used to start the turbine generators, or routine exercises and maintenance; and
- one (1) 7 mmBtu/hr thermal oxidizer (OXIDR) will be installed to replace an existing 29.5 mmBtu/hr Cleaver-Brooks CB700-750-125HW boiler and exhaust through the boiler's existing exhaust stack to destroy those impurities removed from the WWTP's digester gas in the National Grid digester gas separation project.

Building(s): MAIN  
NMAIN  
OUTDOOR  
PHASEIIGEN

**Item 18.2:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 2-WWTRE

Emission Unit Description:

This emission unit consists of the WWTP's wastewater treatment processes, which include: • Headworks (HWK);

- Aeration AND Final Settling (AFS);



- Sludge Anaerobic Digestion (SAD);
- Digester Gas Holding (DGH);
- Central Residual (CRP);
- Chemical and Fuel Storage (CFS); and
- Chlorine Contact (CCT) with dechlorination.

This emission unit also includes the WWTP's extensive odor control system comprising of:

- North and Central Odor Control for treating air from aeration tanks, grit chambers and final sedimentation tanks includes 14 carbon adsorbers (NCOC1, NCOC2, NCOC3, NCOC4, NCOC5, NCOC6, NCOC7, NCOC8, NCOC9, NOC10, NOC11, NOC12, NOC13 and NOC14) exhaust through a joint stack NCOCA;
- South Odor Control for treating air from aeration tanks, grit chambers and final sedimentation tanks includes 7 carbon adsorbers (SOOC1, SOOC2, SOOC3, SOOC4, SOOC5, SOOC6 and SOOC7) exhaust through a joint stack SOOCA;
- Central Residual Building Odor Control for treating air from screening room, channels and compactor, the sludge screening areas, the grit cyclone and classifier areas, the skimming concentrator areas, the disposal areas and the splitter box includes 14 carbon adsorbers (CROC1, CROC2, CROC3, CROC4, CROC5, CROC6, CROC7, CROC8, CROC9, CRO10, CRO11, CRO12, CRO13 and CRO14) exhaust through a joint stack CROCA;
- Main Building Screening Wing Odor Control for treating air from forebay, bar screening and afterbay includes 4 carbon adsorbers (MBOC1, MBOC2, MBOC3 and MBOC4) exhaust through their own stacks (MBOCA, MBOCB, MBOCC and MBOCD) respectively; and
- Digester Service Building Odor Control for treating air from digesters and sludge storage tanks includes 2 carbon adsorbers (ADOC1 and ADOC2) exhaust through a joint stack ADOCA.

The odor control system also includes one carbon adsorber MUSC1, which exhausts through MUSCA to treat air from the Manhattan uptake shaft and one carbon adsorber ISBC1, which exhausts through ISBCA to treat air from the influent splitter box. After the completion of the WWTP upgrade construction, the emissions from the influent splitter box will be treated by the Central Residual Building Odor Control System.

This emission unit also contains the WWTP's non-exempt chemical storage and fuel storage tanks, six 18,190 gallon hypochlorite tanks (HYPO1, HYPO2, HYPO3, HYPO4, HYPO5 and HYPO6), four 20,000 gallons diesel tanks (FOST1, FOST2, FOST3 and FOST4) and one 12,000 gallon diesel tank (FOST5). The WWTP will upgrade the disinfection process to include dechlorination using sodium bisulfite, including

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replacing two of six (6) existing 18,190 gallon hypochlorite storage tanks with two (2) new similar size tanks (BISU1 and BISU2) for sodium bisulfite storage.

Building(s): MAIN  
MAINSCREEN  
NCONTROL  
OUTDOOR  
RESIDUAL  
SCONTROL  
SERVICE

**Condition 19: Renewal deadlines for state facility permits  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR 201-5.2 (c)**

**Item 19.1:**

The owner or operator of a facility having an issued state facility 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.

**Condition 20: Compliance Demonstration  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR 201-5.3 (c)**

**Item 20.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 20.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources  
NYS Dept. of Environmental Conservation  
Region 2  
47-40 21st St.  
Long Island City, NY 11101

Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).

**Condition 21: Visible Emissions Limited  
Effective for entire length of Permit**



**Applicable State Requirement:6 NYCRR 211.2**

**Item 21.1:**

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

**Condition 22: Compliance Demonstration  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR 211.2**

**Item 22.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 22.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Except as permitted by a specific part of Title 6 of the NYCRR, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Operators of air contamination sources that are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

- 1) Observe the stack(s) or vent(s) once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).
- 2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:
  - weather condition
  - was a plume observed?

This logbook must be retained at the facility for five (5) years after the date of the last entry.

- 3) If the operator observes any visible emissions (other

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than steam - see below) two consecutive days, then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

\*\* NOTE \*\* Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary, however, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: 6 MINUTE AVERAGE  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).

\*\*\*\* Emission Unit Level \*\*\*\*

**Condition 23: Emission Point Definition By Emission Unit Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 23.1:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 1-COMBU

Emission Point: BSE1A

Height (ft.): 44

Diameter (in.): 8

NYTMN (km.): 4509.6

NYTME (km.): 589.4

Building: NMAIN

Emission Point: BSE1B

Height (ft.): 44

Diameter (in.): 8

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NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: NMAIN
Emission Point: BSE2A		
Height (ft.): 44	Diameter (in.): 8	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: NMAIN
Emission Point: BSE2B		
Height (ft.): 44	Diameter (in.): 8	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: NMAIN
Emission Point: EBLRA		
Height (ft.): 49	Length (in.): 48	Width (in.): 48
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: FLARA		
Height (ft.): 30	Diameter (in.): 96	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: OUTDOOR
Emission Point: FLARB		
Height (ft.): 30	Diameter (in.): 96	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: OUTDOOR
Emission Point: FLARC		
Height (ft.): 30	Diameter (in.): 96	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: OUTDOOR
Emission Point: FLARD		
Height (ft.): 30	Diameter (in.): 96	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: OUTDOOR
Emission Point: MBLRA		
Height (ft.): 75	Diameter (in.): 36	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: MBLRB		
Height (ft.): 75	Diameter (in.): 36	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: MBLRC		
Height (ft.): 75	Diameter (in.): 36	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: MBLRD		
Height (ft.): 75	Diameter (in.): 36	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: MBLRE		
Height (ft.): 75	Diameter (in.): 36	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: TURBA		
Height (ft.): 74	Diameter (in.): 54	

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NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: TURBB		
Height (ft.): 74	Diameter (in.): 54	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: TURBC		
Height (ft.): 74	Diameter (in.): 54	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN
Emission Point: TURBD		
Height (ft.): 74	Diameter (in.): 54	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: MAIN

**Item 23.2:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 2-WWTRE		
Emission Point: ADOCA		
Height (ft.): 52	Diameter (in.): 36	
NYTMN (km.): 4509.6	NYTME (km.): 589.4	Building: SERVICE
Emission Point: CROCA		
Height (ft.): 125	Diameter (in.): 108	
NYTMN (km.): 4509.709	NYTME (km.): 588.799	Building: OUTDOOR
Emission Point: ISBCA		
Height (ft.): 8	Diameter (in.): 12	
NYTMN (km.): 4509.709	NYTME (km.): 588.799	Building: OUTDOOR
Emission Point: MBOCA		
Height (ft.): 42	Diameter (in.): 30	
NYTMN (km.): 4509.523	NYTME (km.): 588.9	Building: MAIN
Emission Point: MBOCB		
Height (ft.): 42	Diameter (in.): 30	
NYTMN (km.): 4509.523	NYTME (km.): 588.9	Building: MAIN
Emission Point: MBOCC		
Height (ft.): 42	Diameter (in.): 30	
NYTMN (km.): 4509.523	NYTME (km.): 588.9	Building: MAIN
Emission Point: MBOCD		
Height (ft.): 42	Diameter (in.): 30	
NYTMN (km.): 4509.523	NYTME (km.): 588.9	Building: MAIN
Emission Point: MUSCA		
Height (ft.): 7	Diameter (in.): 12	
NYTMN (km.): 4509.709	NYTME (km.): 588.799	Building: OUTDOOR
Emission Point: NCOCA		



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Height (ft.): 125                      Diameter (in.): 96  
NYTMN (km.): 4509.709    NYTME (km.): 588.799    Building: NCONTROL

Emission Point: SOOCA  
Height (ft.): 125                      Diameter (in.): 72  
NYTMN (km.): 4509.709    NYTME (km.): 588.799    Building: SCONTROL

**Condition 24:    Process Definition By Emission Unit  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 24.1:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-COMBU  
Process: BLR                                      Source Classification Code: 1-03-007-01  
Process Description:

This process is for the new nine (9) 29.5 mmBtu/hr Cleaver Brooks CB700-750-125HW boilers to fire gaseous fuel (sludge digester gas or natural gas or a blend). These new boilers normally fire sludge digester gas. At times, when sludge digester gas is unavailable, these boilers will fire natural gas or a blend. Up to eight of these new boilers may be operated at a time during peak demand in the winter. At all times, at least one boiler is kept offline as standby.

Emission Source/Control: MBLR1 - Combustion  
Design Capacity: 29.5 million Btu per hour

Emission Source/Control: MBLR2 - Combustion  
Design Capacity: 29.5 million Btu per hour

Emission Source/Control: MBLR3 - Combustion  
Design Capacity: 29.5 million Btu per hour

Emission Source/Control: MBLR4 - Combustion  
Design Capacity: 29.5 million Btu per hour

Emission Source/Control: MBLR5 - Combustion  
Design Capacity: 29.5 million Btu per hour

Emission Source/Control: MBLR6 - Combustion  
Design Capacity: 29.5 million Btu per hour

Emission Source/Control: MBLR7 - Combustion  
Design Capacity: 29.5 million Btu per hour

Emission Source/Control: MBLR8 - Combustion  
Design Capacity: 29.5 million Btu per hour

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Emission Source/Control: MBLR9 - Combustion  
Design Capacity: 29.5 million Btu per hour

**Item 24.2:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-COMBU  
Process: BSG Source Classification Code: 2-02-004-01  
Process Description:

This process includes two (2) Cummins QST30-G1 7.5 mmBtu/hr black start internal combustion engine generators that be used to kick start the emergency turbines. These emergency units are expected to operate only for routine testing and maintenance and to start the turbines.

Emission Source/Control: BSEG1 - Combustion  
Design Capacity: 7.5 million Btu per hour

Emission Source/Control: BSEG2 - Combustion  
Design Capacity: 7.5 million Btu per hour

**Item 24.3:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-COMBU  
Process: EBR Source Classification Code: 1-03-007-01  
Process Description:

This process is for the three (3) existing 16.75 mmBtu/hr Cleaver Brooks CB 700-400-15 boilers that fire natural gas. One boiler is continuously operated throughout the year and two boilers are operated during peak heating demand in the winter. At all times, at least one boiler is kept offline as standby.

Emission Source/Control: EBLR1 - Combustion  
Design Capacity: 16.75 million Btu per hour

Emission Source/Control: EBLR2 - Combustion  
Design Capacity: 16.75 million Btu per hour

Emission Source/Control: EBLR3 - Combustion  
Design Capacity: 16.75 million Btu per hour

**Item 24.4:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-COMBU  
Process: FLA  
Process Description:

This process is for four (4) Varec 249, 46 mmBtu/hr enclosed waste gas burners to burn the excessive sludge digester gas produced at the WWTP.





Design Capacity: 58 million Btu per hour

Emission Source/Control: TURB2 - Combustion  
Design Capacity: 58 million Btu per hour

Emission Source/Control: TURB3 - Combustion  
Design Capacity: 58 million Btu per hour

Emission Source/Control: TURB4 - Combustion  
Design Capacity: 58 million Btu per hour

**Item 24.7:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-WWTRE

Process: AFS

Source Classification Code: 5-01-007-31

Process Description:

This is the WWTP's modified Activated Final Sludge (AFS) secondary treatment process consisting of 24 modified diffused air activated sludge aeration tanks. In this process, the effluent from the primary treatment section containing mainly colloidal and dissolved solids (both inorganic and organic) are treated biologically by utilizing many different types of microorganisms in a controlled environment. These beneficial microorganisms consume most of the remaining organic pollutants producing heavier particles which settle out later in the final settling tanks. Large amounts of air are pumped into aeration tanks mixing the wastewater and sludge returned from the WWTP's final settling tanks. The aeration tanks and the final settling tanks' weirs are covered and the odors are controlled using carbon adsorption tanks. The total throughput is based on dry weather flow.

Emission Source/Control: NCOC1 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NCOC2 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NCOC3 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NCOC4 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NCOC5 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NCOC6 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

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Emission Source/Control: NCOC7 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NCOC8 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NCOC9 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NOC10 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NOC11 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NOC12 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NOC13 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: NOC14 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SOOC1 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SOOC2 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SOOC3 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SOOC4 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SOOC5 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SOOC6 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SOOC7 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: 00ATS - Process  
Design Capacity: 310,000,000 gallons per day

**Item 24.8:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-WWTRE



Process: CCT Source Classification Code: 5-01-007-60  
Process Description:

This process is the WWTP's Chlorine Contact Tanks (CCT) for the disinfection process. The wastewater from the final settling tanks flows to the chlorine contact tanks where sodium hypochlorite is added to disinfect and kill disease-causing organisms. The treated wastewater (effluent) is then released to local waterways.

The total thruput is based on dry weather flow.

Emission Source/Control: 0CCTS - Process  
Design Capacity: 310,000,000 gallons per day

**Item 24.9:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-WWTRE  
Process: CFS  
Process Description:

This emission unit is for the facility's non-exempt Chemical and Fuel Storage (CFS) tanks. This CST process includes a total of 6 (six) non-exempt 18,190 gallon hypochlorite tanks. There are also five non-exempt Diesel fuel tanks, four 20,000 gallon tanks and one 12,000 gallon tank.

As part of the WWTP's upgrade plan, DEP is replacing two of the existing 18,190 gallon hypochlorite storage tanks with two similar size tanks. These two tanks will be used to store sodium bisulfite for the dechlorination process.

Emission Source/Control: BISU1 - Process  
Design Capacity: 18,190 gallons

Emission Source/Control: BISU2 - Process  
Design Capacity: 18,190 gallons

Emission Source/Control: FOST1 - Process  
Design Capacity: 20,000 gallons

Emission Source/Control: FOST2 - Process  
Design Capacity: 20,000 gallons

Emission Source/Control: FOST3 - Process  
Design Capacity: 20,000 gallons

Emission Source/Control: FOST4 - Process  
Design Capacity: 20,000 gallons

Emission Source/Control: FOST5 - Process



Design Capacity: 12,000 gallons

Emission Source/Control: HYPO1 - Process  
Design Capacity: 18,190 gallons

Emission Source/Control: HYPO2 - Process  
Design Capacity: 18,190 gallons

Emission Source/Control: HYPO3 - Process  
Design Capacity: 18,190 gallons

Emission Source/Control: HYPO4 - Process  
Design Capacity: 18,190 gallons

Emission Source/Control: HYPO5 - Process  
Design Capacity: 18,190 gallons

Emission Source/Control: HYPO6 - Process  
Design Capacity: 18,190 gallons

**Item 24.10:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-WWTRE

Process: CRP

Source Classification Code: 5-01-007-07

Process Description:

The process is the Central Residual Process (CRP) takes place in the Central Residual Building. The process includes the following areas: screening room, channels and compactor, the sludge screening areas, the grit cyclone and classifier areas, the skimmings concentrator areas and the disposal areas. The odor control system consists of 14 carbon adsorbers that discharge through a common single exhaust stack. The total throughput is based on the designed ventilation air flow capacity of the activated carbon adsorption vessels. This process is at the Central Residual Building.

Emission Source/Control: CRO10 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CRO11 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CRO12 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CRO13 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CRO14 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

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Emission Source/Control: CROC1 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC2 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC3 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC4 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC5 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC6 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC7 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC8 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CROC9 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: 00CRP - Process

**Item 24.11:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-WWTRE

Process: DGH

Source Classification Code: 5-01-007-99

Process Description:

This process is the Digester Gas Holding (DGH) tank. This tank has no add on emission control and its emission could be ignored because the tank has no active Emission points and or pollutant releases.

The total thruput is estimated based on historical operation data.

Emission Source/Control: GHOLD - Process

Design Capacity: 300,000 cubic feet

**Item 24.12:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-WWTRE

Process: HWK

Source Classification Code: 5-01-007-07



Process Description:

This process is the WWTP's wastewater pre-treatment Headworks (HWK) processes including Forebay the Bar Screening chamber, the Influent Splitter Box and its weir. The Forebay and Bar Screens consist of upright bars spaced one to three inches apart. The primary purpose of the bar screen is to remove large pieces of trash (rags, sticks, newspaper, cans, etc.,) to protect the main sewage pump and other equipment. The total throughput is based on dry flow.

Currently, odors from the WWTP's headworks process are controlled by two packaged carbon adsorbers located at the Manhattan Uptake Shaft and the Influent Splitter Box. As part of the final upgrade, odors from processes in main building will be controlled by 4 odor control units in the main building screening wing, the emissions from the influent splitter box will be treated by the central residual building odor control system

Emission Source/Control: ISBOC - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: MBOC1 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: MBOC2 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: MBOC3 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: MBOC4 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: MUSC1 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: ISBOX - Process  
Design Capacity: 310,000,000 gallons per day

Emission Source/Control: SCREN - Process  
Design Capacity: 310,000,000 gallons per day

**Item 24.13:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-WWTRE  
Process: SAD Source Classification Code: 5-01-007-99

Process Description:

The Sludge Anaerobic Digestion (SAD) process consists of 8 egg-shape digesters and 2 sludge storage tanks. The

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odors from the 8 digester overflow boxes and the 2 sludge storage tanks are controlled using a carbon adsorber system. The odor control system will consist of two dual bed carbon adsorbers. Under normal operations, one unit will be operating and one unit will be on standby.

Emission Source/Control: ADOC1 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: ADOC2 - Control  
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DIGES - Process