



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 2-6203-00005/00049
Mod 0 Effective Date: 07/18/2006 Expiration Date: No expiration date.
Mod 1 Effective Date: 12/06/2006 Expiration Date: No expiration date.
Mod 2 Effective Date: 08/27/2007 Expiration Date: No expiration date.
Mod 3 Effective Date: 09/20/2007 Expiration Date: No expiration date.
Mod 4 Effective Date: 11/20/2008 Expiration Date: No expiration date.
Mod 5 Effective Date: 05/01/2012 Expiration Date: No expiration date.

Permit Issued To: NYC DEPT OF ENVIRONMENTAL PROTECTION
96-05 HORACE HARDING EXPWY
FLUSHING, NY 11368

Contact: DOUGLAS S GREELEY
NYCDEP/BWT
96-05 HORACE HARDING EXPWY 2ND FL
CORONA, NY 11368
(718) 595-5050

Facility: NYC-DEP WARDS ISLAND WPCP
WARDS ISLAND - E SIDE
NEW YORK, NY 10035

Contact: VINCENT SAPIENZA
NYCDEP / BWT
59-17 JUNCTION BLVD
FLUSHING, NY 11373
(718) 595-4906

Description:
The Wards Island WPCP is an existing secondary wastewater treatment plant currently permitted to treat 275 million gallons per day (mgd) average dry weather flow and 550 mgd wet weather flow. The plant has both combustion and non-combustion operational processes.

This permit modification is submitted for: 1) the installation of three (3) new 800 horsepower (hp) mobile trailer mounted boilers that will use digester gas or #2 fuel oil. One of the three boilers will be used as a backup, 2) decommissioning of the existing 16.7 mmBtu/hr steam backup boiler, 3) replacement of the WWTP's rental interim 2000 kW emergency engine diesel generator with a new equivalent DEP-owned emergency engine generator (EPA Certified 2010 Model Year).

New York State Department of Environmental Conservation
Facility DEC ID: 2620300005



The NYCDEP is proposing the Wards Island Wastewater Treatment Plant (WI WWTP) heating project to insure continued compliance with the WWTP's Permit heating requirements upon the closure of the nearby New York State Office of Mental Health (NYS-OMH), Manhattan Psychiatric Center (MPC) boiler plant.

Under the existing Air State Facility Permit, the WI WWTP currently exchanges produced digester gas for steam supply from the MPC boiler plant, and with the exception of supplemental heating from a 16.7 mmBtu/hr standby boiler installed at the WI WWTP, the MPC boiler plant supplies all of the heating and process steam for the WWTP. Due to changes within the MPC facility, the existing MPC plant is expected to discontinue operations in the fall of 2012.

The facility NOx emissions are capped at 24.9 tons per year.

The facility VOC emissions are capped at 24.9 tons per year.

The facility HAP emissions are capped at 24.9 tons per year (9.9 tons per year for any individual HAP).

The facility is subject to the provisions of Air State Facility specified under 6NYCRR 201-7.2.

The Air State facility permit contains a listing of the applicable federal, state and compliance monitoring requirements for the 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: JOHN F CRYAN
 NYSDEC
 47-40 21ST ST
 LONG ISLAND CITY, NY 11101-5407

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
 - Applications for Permit Renewals and Modifications
 - Permit modifications, suspensions or revocations by the Department
 - Permit modifications, suspensions or revocations by the Department
 - Permit Modifications, Suspensions and Revocations by the Department

Facility Level

- Submission of Applications for Permit Modification or Renewal-REGION 2 HEADQUARTERS
- 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 1-1: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

Item 1-1.1:

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 1-1.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 1-1.3:

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 3: Applications for Permit Renewals and Modifications
Applicable State Requirement: 6 NYCRR 621.13

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 expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for 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 1-2: Permit modifications, suspensions or revocations by the Department

Applicable State Requirement: 6 NYCRR 621.13

Item 1-2.1:

The Department reserves the right 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.

Condition 5-1: Permit modifications, suspensions or revocations by the Department

Applicable State Requirement: 6 NYCRR 621.13

Item 5-1.1:

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.

Condition 4: Permit Modifications, Suspensions and Revocations by the Department
Applicable State Requirement: 6 NYCRR 621.14

Item 4.1:

The Department reserves the right 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 Applications for Permit Modification or Renewal-REGION 2 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.5 (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

Condition 1-3: Submission of application for permit modification or renewal - REGION 2

HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 1-3.1:

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: 2-6203-00005/00049

Facility DEC ID: 2620300005



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 EXPWY
FLUSHING, NY 11368

Facility: NYC-DEP WARDS ISLAND WPCP
WARDS ISLAND - E SIDE
NEW YORK, NY 10035

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

Mod 0 Permit Effective Date: 07/18/2006
date.

Permit Expiration Date: No expiration

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date.

Permit Expiration Date: No expiration

Mod 2 Permit Effective Date: 08/27/2007
date.

Permit Expiration Date: No expiration

Mod 3 Permit Effective Date: 09/20/2007
date.

Permit Expiration Date: No expiration

Mod 4 Permit Effective Date: 11/20/2008
date.

Permit Expiration Date: No expiration

Mod 5 Permit Effective Date: 05/01/2012
date.

Permit Expiration Date: No expiration



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 5-1 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- *5-2 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- *5-3 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 1-1 6 NYCRR 201-7.2: Facility Permissible Emissions
- *4-1 6 NYCRR 201-7.2: Capping Monitoring Condition
- *4-2 6 NYCRR 201-7.2: Capping Monitoring Condition
- 5-4 6 NYCRR 211.1: Air pollution prohibited
- 5 6 NYCRR 225-1.2 (a) (2): Compliance Demonstration
- 6 6 NYCRR 225-1.8: Compliance Demonstration
- 5-5 40CFR 60, NSPS Subpart III: Applicability
- 5-6 40CFR 63, Subpart JJJJJ: Applicability
- 5-7 40CFR 63, Subpart ZZZZ: Engines at Area sources of HAP

Emission Unit Level

EU=1-COMBU

- 7 6 NYCRR 227-1.3 (a): Compliance Demonstration

EU=2-WWTRE

- 4-4 6 NYCRR Part 212: Compliance Demonstration
- 4-5 6 NYCRR Part 212: Compliance Demonstration
- 10 6 NYCRR 212.3 (a): Emissions from Existing Sources
- 11 6 NYCRR 212.6 (a): Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 12 ECL 19-0301: Contaminant List
- 5-8 6 NYCRR 201-1.4: Unavoidable noncompliance and violations
- 14 6 NYCRR Subpart 201-5: Emission Unit Definition
- 15 6 NYCRR 201-5.4 (b): Compliance Demonstration
- 5-9 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

- 17 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 18 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: Emergency Defense - 6 NYCRR 201-1.5

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

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

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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



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

Item F: 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 G: 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 H: 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 I: 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 J: Required Emission Tests - 6 NYCRR 202-1.1

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



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 K: 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 L: Permit Exclusion - ECL 19-0305

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

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

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

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 5-1: Facility Permissible Emissions

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 5-1.1:

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 (From Mod 5) PTE: 49,800 pounds
per year
Name: OXIDES OF NITROGEN

Condition 5-2: Capping Monitoring Condition

Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 5-2.1:

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 Subpart 201-6

Item 5-2.2:

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

Item 5-2.3:

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 5-2.4:

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 5-2.5:

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 5-2.6:

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



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

Emission Unit: 1-COMBU
Process: BDG

Emission Point: IBLRA
Emission Source: IBLR1

Emission Unit: 1-COMBU
Process: BDG

Emission Point: IBLRB
Emission Source: IBLR2

Emission Unit: 1-COMBU
Process: BDG

Emission Point: IBLRC
Emission Source: IBLR3

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 5-2.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission Factor of 19.8 lb/mmsscft of NO_x when firing digester gas, as proposed by the manufacturer, should be demonstrated through a stack test.

Upper Permit Limit: 19.8 pounds per million cubic feet

Reference Test Method: EPA Method

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: AVERAGING METHOD - SEE MONITORING
DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 5-3: Capping Monitoring Condition

Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 5-3.1:

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 Subpart 201-6

6 NYCRR Subpart 231-2

Item 5-3.2:

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

Item 5-3.3:

The owner or operator of the permitted facility must maintain all required records on-site for a

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



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 5-3.4:

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 5-3.5:

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 5-3.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

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

Item 5-3.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The NO_x (oxides of nitrogen) emissions are capped at 24.9 tons per year.

The owner or operator shall maintain a record of the quantity of each fuel fired at the facility. Also, the owner or operator shall calculate (based on the fuel quantity) using the following formula:

$$R(0.075) + D(0.02) + G(100) + E(0.0678) + DG(100) + DG1(19.8) + F(54.6) + EN(0.21) < 49,800 \text{ lbs/yr of Oxides of Nitrogen emissions.}$$

Where:

R = 12-month rolling total of residual oil (#4 or #6) fired (from boilers) in gals/yr

D = 12-month rolling total of distillate oil fired (from boilers) in gals/yr

G = 12-month rolling total of natural gas fired (from boilers) in MMSCF/yr

E = 12-month rolling total of distillate oil fired (from turbine generators) in gals/yr

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Facility DEC ID: 2620300005



DG = 12-month rolling total of digester gas fired (from
boilers) in MMSCF/yr
DG1 = 12-month rolling total of digester gas fired (from
boilers Em. Sources IBLR1, IBLR2, IBLR3) in
MMSCF/yr
Emission Factor 19.8 lb/mmcsft of NO_x when firing digester
gas, proposed by the manufacturer, should be demonstrated
through the stack test.
F = 12-month rolling total of digester gas fired (from
flares) in MMSCF/yr
EN = 12-month rolling total of distillate oil fired (from
new 2010 Model Caterpillar 2000 kW engine) in
gals/yr
-0.21 lb/gal emission factor is based on the 40CFR 89.112
standard for diesel fired engines

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 24.9 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2013.

Subsequent reports are due every 12 calendar month(s).

Condition 1-1: Facility Permissible Emissions

Effective between the dates of 12/06/2006 and Permit Expiration Date

Applicable Federal Requirement: 6 NYCRR 201-7.2

Item 5-1.1:

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:

per year	CAS No: 0NY100-00-0 (From Mod 5)	PTE: 49,800 pounds
	Name: HAP	
per year	CAS No: 0NY998-00-0 (From Mod 5)	PTE: 49,800 pounds
	Name: VOC	

Condition 4-1: Capping Monitoring Condition

Effective between the dates of 11/20/2008 and Permit Expiration Date

Applicable Federal Requirement: 6 NYCRR 201-7.2

Item 4-1.1:

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

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 4-1.2:

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

Item 4-1.3:

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 4-1.4:

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 4-1.5:

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 4-1.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY100-00-0 HAP

Item 4-1.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Annual plantwide HAPs emissions will be determined based on the Toxchem+modeling for wastewater treatment processes.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: WASTEWATER

Parameter Monitored: HAP

Upper Permit Limit: 24.9 tons per year

Reference Test Method: EPA 600 Series

Monitoring Frequency: MINIMUM - ONCE PER CALENDAR YEAR

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 12 calendar month(s).

Condition 4-2: Capping Monitoring Condition

Effective between the dates of 11/20/2008 and Permit Expiration Date

Applicable Federal Requirement: 6 NYCRR 201-7.2

Item 4-2.1:

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 Subpart 201-6

Item 4-2.2:

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

Item 4-2.3:

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 4-2.4:

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 4-2.5:

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 4-2.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 4-2.7:

Compliance Demonstration shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

Annual plantwide VOC emissions will be determined based
on the Toxchem+modeling for wastewater treatment
processes.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: WASTEWATER

Parameter Monitored: VOC

Upper Permit Limit: 24.9 tons per year

Reference Test Method: EPA 600 Series

Monitoring Frequency: MINIMUM - ONCE PER CALENDAR YEAR

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 12 calendar month(s).

Condition 5-4: Air pollution prohibited

Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR 211.1

Item 5-4.1:

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 5: Compliance Demonstration

Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR 225-1.2 (a) (2)

Item 5.1:

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

Emission Unit: 1-COMBU

Item 5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

All New York City service contracts require suppliers to

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



provide fuel oils that meet the low sulfur content requirement of 0.2% by weight for distillate fuel oils. Upon each oil delivery the oil supplier must provide a certificate that the oil delivered meets the 0.2% by weight sulfur content limitation. A log of the sulfur content in the fuel oil received, burned or sold must be maintained by the owner or operator for the period of three years after the date of the last entry.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.2 percent by weight

Reference Test Method: EPA

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 6: Compliance Demonstration
Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR 225-1.8

Item 6.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 5-5: Applicability
Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable Federal Requirement:40CFR 60, NSPS Subpart IIII

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Item 5-5.1:

Facilities that have stationary compression ignition internal combustion engines must comply with applicable portions of 40 CFR 60 Subpart IIII.

Condition 5-6: Applicability

Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable Federal Requirement:40CFR 63, Subpart JJJJJJ

Item 5-6.1:

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

Condition 5-7: Engines at Area sources of HAP

Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable Federal Requirement:40CFR 63, Subpart ZZZZ

Item 5-7.1:

Internal combustion engines, constructed or re-constructed on or after June 12, 2006, that meet the requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ meet the requirements of 40 CFR 63 Subpart ZZZZ.

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

Condition 7: Compliance Demonstration

Effective between the dates of 07/18/2006 and Permit Expiration Date

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

Item 7.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-COMBU

Item 7.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

No owner or operator of a combustion installation shall operate the installation in such a way to emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average in reference test Method 9 in Appendix A of

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



40 CFR 60.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 4-4: Compliance Demonstration

Effective between the dates of 11/20/2008 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR Part 212

Item 4-4.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 2-WWTRE

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 4-4.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission test is required to determine VOC emissions from the waste water treatment processes.

Parameter Monitored: VOC

Upper Permit Limit: 24.9 tons per year

Reference Test Method: USEPA 600 Series

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 4-5: Compliance Demonstration

Effective between the dates of 11/20/2008 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR Part 212

Item 4-5.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 2-WWTRE

Regulated Contaminant(s):

CAS No: 0NY100-00-0 HAP

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Item 4-5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emission test is required to determine HAP emissions from the waste water treatment processes.

Parameter Monitored: HAP

Upper Permit Limit: 24.9 tons per year

Reference Test Method: USEPA 600 Series

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 10: Emissions from Existing Sources

Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable Federal Requirement: 6 NYCRR 212.3 (a)

Item 10.1:

This Condition applies to Emission Unit: 2-WWTRE

Item 10.2: No person will cause or allow emissions that violate the requirement specified in Table 2, Table 3, or Table 4 of 6NYCRR Part 212 for the environmental rating issued by the commissioner.

Condition 11: Compliance Demonstration

Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable Federal Requirement: 6 NYCRR 212.6 (a)

Item 11.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 2-WWTRE

Item 11.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

No person shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source, except only the emission of uncombined water. Compliance with this requirement shall be determined by the facility owner/operator conducting a daily survey of visible emissions when the process is in operation. If any

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



visible emissions are identified, corrective action is required. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: EPA Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



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: Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)

Where emission source owners and/or operators keep records pursuant to compliance with the operational flexibility requirements of 6 NYCRR Subpart 201-5.4(b)(1), and/or the emission capping requirements of 6 NYCRR Subparts 201-7.2(d), 201-7.3(f), 201-7.3(g), 201-7.3(h)(5), 201-7.3(i) and 201-7.3(j), the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Emission source owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department of receipt of the request.

Item B: 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.

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Condition 12: Contaminant List

Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable State Requirement:ECL 19-0301

Item 12.1:

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

CAS No: 0NY100-00-0

Name: HAP

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

CAS No: 0NY998-00-0

Name: VOC

Condition 5-8: Unavoidable noncompliance and violations

Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable State Requirement:6 NYCRR 201-1.4

Item 5-8.1:

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

(a) The facility owner and/or operator shall compile and maintain records of all equipment 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 commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superseded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

Condition 14: Emission Unit Definition

Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 14.1 (From Mod 5):

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

Emission Unit: 1-COMBU

Emission Unit Description:

This emission unit consists of the plant's combustion equipment sources. There are three boilers at Wards Island WPCP that are fueled by no. 2 fuel oil. The three boilers have a maximum capacity of 16.7 mmBtu/hr each and are manufactured by Cleaver Brooks. One of these boilers is a steam boiler used to supply heating to the plant when there is insufficient steam produced by the nearby hospital. Under normal conditions, the digester gas produced by the plant is sent to the nearby hospital and the plant receives the steam from the hospital to meet the facility's heating demand. The other two boilers are hot water boilers used to heat the plant's dewatering facility. Only one of these boilers operates at a time and the other is a dedicated standby unit. There are four emergency turbine generators located adjacent to the Pump and Blower Building utilizing no. 2 diesel fuel. All four generators were manufactured by European Gas Turbines and have a maximum capacity of 3500 kW. The main purpose of the turbine generators is to supply power to the plant in the event of a power failure.



There is also one waste gas burner with a maximum design capacity of 567 scfm that is used to flare the excess sludge digester gas. The burner is a candlestick-type and is manufactured by John Zink.

The Plant's non-working old waste digester gas burner was scheduled to be replaced. However, the replacement of this waste digester gas burner has been delayed because of the overall delay in the plant's interim upgrading project.

The plant also operates a 400 bhp trailer mounted hot water boiler to supply heat to offices and sludge vessels docked at the Wards Island WPCP.

The plant will install and operate a 1,400 cfm John Zink Model STF U-U12 waste sludge digester gas burner to flare excessive sludge digester gas.

Due to changes within the MPC facility, the existing MPC plant is expected to discontinue operations in the fall of 2012. The plant will add three trailer mounted 33.4 mmBtu/hr (800 hp) steam boilers (emission sources IBLR1 through IBLR3 exhaust through emission points IBLRA through IBLRC) with one boiler as standby. The existing backup steam boiler BW1 (16.7 mmBtu/hr) exhausts through BLRWW will be removed after the installation of the three new boilers.

Building(s): TRAILER

Item 14.2(From Mod 4):

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 plant's non-combustion operational processes. These processes include the plant's wastewater treatment processes, sludge handling processes, residuals handling processes, and miscellaneous sources. The plant's wastewater treatment processes include the primary settling, aeration, final settling and chlorine contact disinfection tanks. The associated processes to handle sludge produced by the wastewater treatment processes include gravity thickening, sludge digesters, sludge storage, a dewatering facility and its auxiliary sludge cake storage building (not in operation).

Wet scrubbers and/or activated carbon adsorption systems are installed at the sludge dewatering facility and activated carbon adsorption systems are installed at the interim residual handling facility for H₂S odor control purposes.



Biological nitrogen removal (BNR) is an effective way to reduce the total nitrogen load from wastewater facilities.

It involves a series of biochemical reactions that transform nitrogen from one form to another. At the Wards Island WPCP, the existing aeration tanks will be modified from the conventional step-feed treatment to step-feed BNR treatment. In the step feed BNR process to be employed at Wards Island WPCP, the aeration tanks are operated in a four pass mode, with return activated sludge (RAS) introduced at the front end of the aeration tank (AT) in Pass A and primary effluent introduced to the tank at 3 feed points (Passes B, C, and D). The AT consists of three zones; anoxic, oxic and pre-anoxic. The oxic zones are aerated and provide nitrification (conversion of ammonia to nitrite to nitrate). The anoxic zones are mixed with mechanical mixers but are not aerated, allowing denitrification to occur (conversion of nitrate produced from the nitrification process to nitrogen gas). Pre-anoxic zones are included at the end of the oxic zone in Passes A, B, and C to prevent transfer of oxygen to the anoxic zone following it, optimizing its performance.

The upgrading construction to implement the Biological Nutrient Removal (nitrogen reduction) treatment using methanol and other miscellaneous improvements is scheduled to begin in 2006 and is expected to be completed in December 2009.

Building(s): CAKESTORAG
DEWATERING
MAIN
OUTDOOR
RESID
SGGHF
SLUDGE

Condition 15: Compliance Demonstration
Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable State Requirement:6 NYCRR 201-5.4 (b)

Item 15.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 15.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operational Flexibility

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Narrative:

Under the operational flexibility provisions of this section, the following changes do not require prior approval by the Department or a permit modification:

- (i) changes that do not cause emissions to exceed any emission limitation contained in regulations or applicable requirements;
- (ii) changes which do not cause the source to become subject to any additional regulations or requirements;
- (iii) changes that do not seek to establish or modify a federally-enforceable emission cap or limit.

The facility owner and/or operator is required to maintain records of the date and description of such changes and make such records available for review by Department representatives upon request.

This section also requires the permittee to notify the Department in writing at least 30 calendar days in advance of making changes involving:

- (i) the relocation of emission points within a facility;
- (ii) the emission of any air pollutant not previously authorized or emitted in accordance with a permit issued by the Department;
- (iii) the installation or alteration of any air cleaning installations, device or control equipment.

Finally, if the department determines that a change does not meet the above criteria and requires a permit modification or the change may result in a significant air quality impact, a more detailed review may be required. In this situation, the permittee will be provided with a written explanation of this by the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 5-9: Visible Emissions Limited
Effective between the dates of 05/01/2012 and Permit Expiration Date

Applicable State Requirement: 6 NYCRR 211.2

Item 5-9.1:

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.

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005

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

Condition 17: Emission Point Definition By Emission Unit
Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable State Requirement:6 NYCRR Subpart 201-5**Item 17.1(From Mod 5):**

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

Emission Unit: 1-COMBU

Emission Point: IBLRA

Height (ft.): 48

Diameter (in.): 24

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: TRAILER

Emission Point: IBLRB

Height (ft.): 48

Diameter (in.): 24

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: TRAILER

Emission Point: IBLRC

Height (ft.): 48

Diameter (in.): 24

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: TRAILER

Emission Point: BLRDW

Height (ft.): 80

Diameter (in.): 32

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building:

DEWATERING

Emission Point: EMGG1

Height (ft.): 45

Diameter (in.): 50

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: PBBLDG

Emission Point: EMGG2

Height (ft.): 45

Diameter (in.): 50

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: PBBLDG

Emission Point: EMGG3

Height (ft.): 45

Diameter (in.): 50

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: PBBLDG

Emission Point: EMGG4

Height (ft.): 45

Diameter (in.): 50

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: PBBLDG

Emission Point: FLARE

Height (ft.): 30

Diameter (in.): 15

NYTMN (km.): 4515.7

NYTME (km.): 590.9

Building: OUTDOOR

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Emission Point: NFLAR
Height (ft.): 30
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building: OUTDOOR

Emission Point: SVBLS
Height (ft.): 117
NYTMN (km.): 4516.
Diameter (in.): 30
NYTME (km.): 590.1
Building: DOCK

Item 17.2(From Mod 4):

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

Emission Unit: 2-WWTRE

Emission Point: CSBC1
Height (ft.): 103
NYTMN (km.): 4515.7
Diameter (in.): 60
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBC2
Height (ft.): 103
NYTMN (km.): 4515.7
Diameter (in.): 60
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBS1
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBS2
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBS3
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBS4
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBS5
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBS6
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Emission Point: CSBS7
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: CSBS8
Height (ft.): 10
NYTMN (km.): 4515.7
Diameter (in.): 18
NYTME (km.): 590.9
Building:
CAKESTORAG

Emission Point: DEWB1
Height (ft.): 70
NYTMN (km.): 4515.7
Diameter (in.): 44
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWB2
Height (ft.): 70
NYTMN (km.): 4515.7
Diameter (in.): 44
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWB3
Height (ft.): 70
NYTMN (km.): 4515.7
Diameter (in.): 44
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWB4
Height (ft.): 70
NYTMN (km.): 4515.7
Diameter (in.): 44
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWC1
Height (ft.): 54
NYTMN (km.): 4515.7
Diameter (in.): 11
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWC2
Height (ft.): 54
NYTMN (km.): 4515.7
Diameter (in.): 11
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWM1
Height (ft.): 57
NYTMN (km.): 4515.6
Diameter (in.): 12
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWM2
Height (ft.): 57
NYTMN (km.): 4515.6
Diameter (in.): 12
NYTME (km.): 590.9
Building:
DEWATERING

Emission Point: DEWM3

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Height (ft.): 30 Diameter (in.): 6
NYTMN (km.): 4515.6 NYTME (km.): 590.9 Building:
DEWATERING

Emission Point: OPIT1
Height (ft.): 68 Diameter (in.): 60
NYTMN (km.): 4515.7 NYTME (km.): 590.9

Condition 18: Process Definition By Emission Unit
Effective between the dates of 07/18/2006 and Permit Expiration Date

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 18.1(From Mod 5):

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

Emission Unit: 1-COMBU
Process: BDF Source Classification Code: 1-03-005-01
Process Description:

Firing #2 fuel oil in the boilers. The boiler BWW1 is located at the NBOILER building and will operate to supply heating to the plant when there is insufficient steam produced by the nearby hospital. This boiler BWW1 exhausts through emission point (EP) BLRWW. The boilers BDW1 and BDW2 are located at the dewatering building (DEWATERING). At all times, one boiler will be kept offline on standby. Boilers BDW1 and BDW2 exhaust through shared stack BLRDW.

The plant also operates a 400 bhp trailer mounted hot water boiler (Source ID: SVBLR) to supply heat to offices and sludge vessels docked at the Wards Island WPCP. This boiler is located at the plant's dock.

Due to changes within the MPC facility, the existing MPC plant is expected to discontinue operations in the fall of 2012. The plant will install three trailer mounted 33.4 mmBtu/hr (800 hp) steam boilers emission sources IBLR1 through IBLR3 exhaust through emission points IBLRA through IBLRC) with one boiler as standby. These boilers will fire #2 fuel oil as back up only there is not adequate digester gas available.

The existing backup steam boiler BWW1 (16.7 mmBtu/hr) exhausts through BLRWW will be removed after the installation of the three new boilers.

Emission Source/Control: IBLR1 - Combustion
Design Capacity: 33.4 million Btu per hour

Emission Source/Control: IBLR2 - Combustion
Design Capacity: 33.4 million Btu per hour

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Emission Source/Control: IBLR3 - Combustion
Design Capacity: 33.4 million Btu per hour

Emission Source/Control: SVBLR - Combustion
Design Capacity: 16.8 million Btu per hour

Item 18.2(From Mod 5):

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

Emission Unit: 1-COMBU

Process: BDG

Source Classification Code: 1-03-007-01

Process Description:

This process is for the three (3) new 33.4 mmBtu/hr (800 hp) steam boilers (emission sources IBLR1 through IBLR3) exhaust through emission points IBLRA through IBLRC) to fire digester gas (DG).

Emission Source/Control: IBLR1 - Combustion
Design Capacity: 33.4 million Btu per hour

Emission Source/Control: IBLR2 - Combustion
Design Capacity: 33.4 million Btu per hour

Emission Source/Control: IBLR3 - Combustion
Design Capacity: 33.4 million Btu per hour

Item 18.3(From Mod 0):

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

Emission Unit: 1-COMBU

Process: EMG

Source Classification Code: 2-02-001-01

Process Description:

Firing diesel fuel in four emergency power generators. These sources will be used for routine testing and emergency electrical power. Emergency generators EGTG1, EGTG2, EGTG3 and EGTG4 exhaust thru EMGG1, EMGG2, EMGG3 and EMGG4, respectively.

Emission Source/Control: EGTG1 - Combustion
Design Capacity: 3,500 kilowatt hours

Emission Source/Control: EGTG2 - Combustion
Design Capacity: 3,500 kilowatt hours

Emission Source/Control: EGTG3 - Combustion
Design Capacity: 3,500 kilowatt hours

Emission Source/Control: EGTG4 - Combustion
Design Capacity: 3,500 kilowatt hours

Item 18.4(From Mod 2):

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



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

Emission Unit: 1-COMBU

Process: FLR

Source Classification Code: 5-01-007-89

Process Description:

This process includes one waste gas burner that is used to flare the excess sludge digester gas. The burner is a candlestick-type and is made by John Zink. It has a maximum capacity of 567 scfm.

The Plant's non-working old waste digester gas burner was scheduled to be replaced. However, the replacement of this waste digester gas burner has been delayed because of the overall delay in the plant's interim upgrading project.

The plant will install and operate a 1,400 cfm John Zink Model STF U-U12 waste sludge digester gas burner to flare excessive sludge digester gas.

Emission Source/Control: 0WDGB - Combustion

Design Capacity: 567 cubic feet per minute (standard conditions)

Emission Source/Control: NWDGB - Combustion

Design Capacity: 1,400 cubic feet per minute (standard conditions)

Item 18.5(From Mod 4):

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

Emission Unit: 2-WWTRE

Process: 0AS

Source Classification Code: 5-01-007-31

Process Description:

THIS PROCESS IS THE PLANT'S WASTEWATER ACTIVATED SLUDGE (AS) SECONDARY TREATMENT PROCESS. THIS PROCESS INCLUDES THIRTEEN (13) ACTIVATED SLUDGE DIFFUSED AERATION TANKS - TWELVE ORIGINAL AND ONE INSTALLED RECENTLY UNDER THE INTERIM UPGRADING. THE TOTAL THRUPUT IS BASED ON DRY WEATHER FLOW.

Emission Source/Control: 000AT - Process

Design Capacity: 250,000,000 gallons per day

Item 18.6(From Mod 4):

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

Emission Unit: 2-WWTRE

Process: 0CC

Source Classification Code: 5-01-007-60

Process Description:

THIS IS THE PLANT'S CHLORINE CONTACT (CC) DISINFECTION PROCESS. THIS PROCESS

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



INCLUDES FOUR (4) CHLORINE CONTACT TANKS.
THE TOTAL THRUPUT IS BASED ON DRY WEATHER
FLOW.

Emission Source/Control: 00CCT - Process
Design Capacity: 250,000,000 gallons per day

Item 18.7(From Mod 4):

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

Emission Unit: 2-WWTRE
Process: OFS Source Classification Code: 5-01-007-40
Process Description:
THIS IS THE PLANT'S WASTEWATER FINAL
SETTLING (FS) PROCESS. THIS PROCESS
INCLUDES THIRTY-NINE (39) FINAL SETTLING
TANKS - THIRTY-SIX ORIGINAL AND THREE
INSTALLED RECENTLY UNDER THE INTERIM
UPGRADING. THE TOTAL THRUPUT IS BASED ON
DRY WEATHER FLOW.

Emission Source/Control: 00FST - Process
Design Capacity: 250,000,000 gallons per day

Item 18.8(From Mod 4):

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

Emission Unit: 2-WWTRE
Process: OPS Source Classification Code: 5-01-007-20
Process Description:
THIS PROCESS IS THE PLANT'S WASTEWATER
PRIMARY SETTLING (PS) PROCESS. THIS
PROCESS INCLUDES TEN (10) PRIMARY SETTLING
TANKS AND ONE (1) PRIMARY SETTLING TANK
INFLUENT CHANNEL. THE TOTAL THRUPUT IS
BASED ON DRY WEATHER FLOW.

Emission Source/Control: 00PST - Process
Design Capacity: 250,000,000 gallons per day

Emission Source/Control: PSTIC - Process
Design Capacity: 275,000,000 gallons per day

Item 18.9(From Mod 4):

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

Emission Unit: 2-WWTRE
Process: ART Source Classification Code: 5-01-007-31
Process Description:
THIS PROCESS IS THE PLANT'S WASTEWATER
ACTIVATED SLUDGE (ART) SECONDARY TREATMENT
PROCESS. THIS PROCESS INCLUDES THIRTEEN



(13) ACTIVATED SLUDGE DIFFUSED AERATION TANKS (AERTK). THE TOTAL THROUGHPUT IS BASED ON DRY WEATHER FLOW AFTER THE PLANT UPGRADE. THE EXISTING AERATION TANKS WILL BE MODIFIED FROM THE CONVENTIONAL STEP-FEED TREATMENT TO STEP-FEED BNR TREATMENT. IN THE STEP FEED BNR, THE AERATION TANKS ARE OPERATED IN A FOUR PASS MODE, WITH RETURN ACTIVATED SLUDGE (RAS) INTRODUCED AT THE FRONT END OF THE AERATION TANK IN PASS A AND PRIMARY EFFLUENT INTRODUCED TO THE TANK AT 3 FEED POINTS (PASSES B,C, AND D). THE AT CONSISTS OF THREE ZONES; ANOXIC, OXIC AND PRE-ANOXIC. THE OXIC ZONES ARE AERATED AND PROVIDE NITRIFICATION (CONVERSION OF AMMONIA TO NITRITE TO NITRATE). THE ANOXIC ZONES ARE MIXED WITH MECHANICAL MIXERS BUT ARE NOT AERATED, ALLOWING DENITRIFICATION TO OCCUR (CONVERSION OF NITRATE PRODUCED FROM THE NITRIFICATION PROCESS TO NITROGEN GAS). PRE-ANOXIC ZONES ARE INTRODUCED AT THE END OF THE OXIC ZONE IN PASSES A,B, AND C TO PREVENT TRANSFER OF OXYGEN TO THE ANOXIC ZONE FOLLOWING IT, OPTIMIZING ITS PERFORMANCE.

The upgrading construction to implement the Biological Nutrient Removal (nitrogen reduction) treatment is scheduled to begin in 2006 and is expected to be completed in December 2009.

Emission Source/Control: AERTK - Process
Design Capacity: 275,000,000 gallons per day

Item 18.10(From Mod 4):

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 IS THE PLANT'S CHLORINE CONTACT (CCT) DISINFECTION PROCESS. THIS PROCESS CONSISTS OF FOUR (4) CHLORINE CONTACT TANKS (CHLTK) FOR REQUIRED DISINFECTION OF THE PLANT EFFLUENT. THE WASTEWATER FROM THE FINAL SETTLING TANKS FLOWS TO THE CHLORINE CONTACT TANKS WHERE SODIUM HYPOCHLORITE IS ADDED INTO THE WASTEWATER TO DESTROY AND KILL THE HARMFUL DISEASE-CAUSING ORGANISMS AND THEREBY TO PROTECT THE RECEIVING WATER. THE TOTAL THROUGHPUT IS BASED ON DRY

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



WEATHER FLOW AFTER THE PLANT UPGRADE.

Emission Source/Control: CHLTK - Process
Design Capacity: 275,000,000 gallons per day

Item 18.11(From Mod 4):

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

Emission Unit: 2-WWTRE
Process: DEG Source Classification Code: 5-01-007-99
Process Description:
THIS PROCESS IS THE PLANT'S DEGRITTER
PROCESS (DEG) CONSISTING OF FOUR (4)
CYCLONE DEGRITTERS (DGRIT) TO REMOVE GRIT
FROM WASTEWATER. THIS PROCESS IS IN THE
NEW RESIDUALS HANDLING FACILITY. THE TOTAL
THROUGHPUT IS ESTIMATED BASED ON
OPERATIONAL DATA 7/2 002-6/2004.

Emission Source/Control: DGRIT - Process

Item 18.12(From Mod 4):

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

Emission Unit: 2-WWTRE
Process: FST Source Classification Code: 5-01-007-40
Process Description:
THIS IS THE PLANT'S WASTEWATER FINAL
SETTLING (FST) PROCESS. THIS PROCESS
INCLUDES THIRTY-NINE (39) FINAL SETTLING
TANKS (FINTK). 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 ACTIVATED SLUDGE FOR CONVEYANCE
BACK TO THE AERATION TANKS. THE TOTAL
THROUGHPUT IS BASED ON DRY WEATHER FLOW
AFTER THE PLANT UPGRADE.

Emission Source/Control: FINTK - Process
Design Capacity: 275,000,000 gallons per day

Item 18.13(From Mod 4):

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

Emission Unit: 2-WWTRE
Process: PHW Source Classification Code: 5-01-007-07
Process Description:
THIS PROCESS IS THE PLANT'S HEADWORKS
(PHW) INCLUDING THE PLANT'S HIGH AND LOW
INFLUENT CHANNELS (HLINF) AND SIX (6) BAR

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



SCREENS (SCREN) IN THE MAIN BUILDING (MAIN). THE BAR SCREENS CONSIST OF UPRIGHT BARS SPACED ONE TO THREE INCHES APART. THE PRIMARY PURPOSE OF THE BAR SCREENING IS TO REMOVE LARGE PIECES OF TRASH (RAGS, STICKS, NEWSPAPERS, CANS, ETC.) FOR THE PROTECTION OF THE MAIN SEWAGE PUMPS AND OTHER EQUIPMENT. THE TOTAL THROUGHPUT IS BASED ON THE DESIGN AVERAGE DRY WEATHER FLOW OF 275 MILLION GALLONS PER DAY (MGD).

Emission Source/Control: HLINF - Process
Design Capacity: 275,000,000 gallons per day

Emission Source/Control: SCREN - Process
Design Capacity: 275,000,000 gallons per day

Item 18.14(From Mod 4):

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

Emission Unit: 2-WWTRE

Process: PST

Source Classification Code: 5-01-007-20

Process Description:

THIS PROCESS IS THE PLANT'S WASTEWATER PRIMARY SETTLING (PST) PROCESS. THIS PROCESS INCLUDES TEN (10) PRIMARY SETTLING TANKS (PRITK) AND ONE (1) PRIMARY SETTLING TANK INFLUENT CHANNEL (PSTIC). PRIMARY SETTLING IS A PROCESS IN WHICH THE SOLID PARTICLES CARRIED IN RAW SEWAGE ARE REMOVED BY GRAVITY UNDER QUIESCENT CONDITIONS IN THE PRIMARY SETTLING TANKS. IN ADDITION, THE PRIMARY SETTLING TANKS ARE USED TO SEPARATE AND REMOVE FLOATING MATERIALS AND SCUM. SOLIDS AND GRIT COLLECTED IN THE TANKS ARE REMOVED AS A THIN SLUDGE BY CONTINUOUS PUMPING TO CYCLONE DEGRITTERS. EACH PRIMARY SETTLING TANK IS EQUIPPED WITH SLUDGE COLLECTORS, DIPPING WEIRS, SCUM REMOVAL EQUIPMENT, AND INLET SLUICE GATES OVERFLOW WEIRS. THE TOTAL THROUGHPUT IS BASED ON DRY WEATHER FLOW AFTER THE PLANT UPGRADE.

Emission Source/Control: PRITK - Process
Design Capacity: 275,000,000 gallons per day

Emission Source/Control: PSTIC - Process
Design Capacity: 275,000,000 gallons per day

Item 18.15(From Mod 4):

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

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Emission Unit: 2-WWTRE

Process: SAD

Source Classification Code: 5-01-007-81

Process Description:

THIS PROCESS IS THE SLUDGE ANAEROBIC DIGESTION (SAD) PROCESS CONSISTING OF EIGHT DIGESTION TANKS (DIGTK). AFTER SLUDGE GRAVITY THICKENING, FOR MAKING IT SAFER FOR THE ENVIRONMENT, THE SLUDGE IS PLACED IN OXYGEN-FREE TANKS CALLED DIGESTERS. DIGESTERS ARE HEATED TO AT LEAST 95 DEGREE OF F 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 DIGESTED SLUDGE IS PUMPED FROM THESE DIGESTION TANKS TO THE DEWATERING BUILDING. THE TOTAL THROUGHPUT IS ESTIMATED BASED ON OPERATIONAL DATA 7/2002-6/2004.

Emission Source/Control: DIGTK - Process

Design Capacity: 2.024 million cubic feet

Item 18.16(From Mod 4):

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

Emission Unit: 2-WWTRE

Process: SCS

Source Classification Code: 5-01-007-99

Process Description:

THIS PROCESS IS THE PLANT'S SLUDGE CAKE STORAGE (SCS) PROCESS IN THE SLUDGE CAKE STORAGE BUILDING (SCAKE). IN CASES WHERE THE SLUDGE CAKES PRODUCED BY THE SLUDGE DEWATERING PROCESS CANNOT BE TRANSPORTED AWAY IMMEDIATELY, THE SLUDGE CAKES WILL BE STORED.

Emission Source/Control: CSBC1 - Control

Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CSBC2 - Control

Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CSBC3 - Control

Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CSBC4 - Control

Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CSBC5 - Control

Control Type: ACTIVATED CARBON ADSORPTION

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Emission Source/Control: CSBC6 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CSBC7 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CSBC8 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SCAKE - Process
Design Capacity: 43,174 tons per year

Emission Source/Control: SILO1 - Process

Emission Source/Control: SILO2 - Process

Emission Source/Control: SILO3 - Process

Emission Source/Control: SILO4 - Process

Emission Source/Control: SILO5 - Process

Emission Source/Control: SILO6 - Process

Emission Source/Control: SILO7 - Process

Emission Source/Control: SILO8 - Process

Item 18.17(From Mod 4):

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

Emission Unit: 2-WWTRE

Process: SDW

Source Classification Code: 5-01-007-92

Process Description:

THIS PROCESS IS THE SLUDGE DEWATERING (SDW) PROCESS AT THE SLUDGE DEWATERING FACILITY (DEWAT). FOUR WET SCRUBBERS ARE INSTALLED AT THE FACILITY FOR BUILDING VENTILATION H₂S ODOR CONTROL. THERE ARE FOUR (4) STACKS. TWO WET SCRUBBERS FOLLOWED BY ACTIVATED CARBON ADSORPTION SYSTEMS WERE INSTALLED AT THE FACILITY FOR CENTRATE PROCESS H₂S ODOR CONTROL. THERE ARE TWO (2) STACKS. THIS PROCESS ALSO INCLUDES A METHANE ABATEMENT SYSTEM FOR THE SLUDGE DEWATERING FACILITY. THE METHANE ABATEMENT SYSTEM CONSTANTLY CIRCULATES AIR BELOW GRADE, ASSURING THAT ANY METHANE RISING FROM THE SITE IS REMOVED. THE DEWATERING BUILDING HAS THREE (3) VENTS THAT CONTROL METHANE. THE TOTAL THROUGHPUT

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



IS ESTIMATED BASED ON OPERATIONAL DATA
7/2002-6-2004.

Emission Source/Control: DWBC1 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DWBC2 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DWBS1 - Control
Control Type: WET SCRUBBER

Emission Source/Control: DWBS2 - Control
Control Type: WET SCRUBBER

Emission Source/Control: DWBS3 - Control
Control Type: WET SCRUBBER

Emission Source/Control: DWBS4 - Control
Control Type: WET SCRUBBER

Emission Source/Control: METH1 - Control
Control Type: WET SCRUBBER

Emission Source/Control: METH2 - Control
Control Type: WET SCRUBBER

Emission Source/Control: METH3 - Control
Control Type: WET SCRUBBER

Emission Source/Control: DEWAT - Process
Design Capacity: 43,174 tons per year

Item 18.18(From Mod 4):

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

Emission Unit: 2-WWTRE

Process: SGG

Source Classification Code: 5-01-007-99

Process Description:

THIS PROCESS IS THE PLANT'S CENTRAL SCREENING, GRIT AND GREASE HANDLING OPERATION (SGG) IN THE INTERIM RESIDUALS HANDLING FACILITY. THIS OPERATION CONSISTS OF RECEIVING, BLENDING, PLACING IN CONTAINERS AND HAULING AWAY THE PLANT'S RESIDUAL AS WELL AS MATERIAL COLLECTED FROM REMOTE MANHOLES AND STORMWATER CATCH BASINS. A FACILITY (PIT) TO ENCLOSE THIS OPERATION BEGAN CONSTRUCTION IN 11/1998 AND WAS IN OPERATION IN BY EARLY 2000. AN ODOR CONTROL SYSTEM CONSISTING OF FIVE (5) ACTIVATED CARBON ADSORPTION VESSELS WAS

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



INSTALLED AT THE FACILITY FOR H₂S ODOR CONTROL PURPOSE. DURING THIS OPERATION, AIR IS EVACUATED FROM THE FACILITY, PASSED THROUGH 5 CARBON ADSORBERS AND SUBSEQUENTLY THROUGH ONE (1) STACK.

Emission Source/Control: PITC1 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: PITC2 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: PITC3 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: PITC4 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: PITC5 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: 00PIT - Process
Design Capacity: 109,500 cubic yards

Item 18.19(From Mod 4):

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

Emission Unit: 2-WWTRE
Process: SGT Source Classification Code: 5-01-007-71
Process Description:

THIS PROCESS IS THE SLUDGE GRAVITY THICKENING (SGT) PROCESS CONSISTING OF TWELVE THICKENING 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. THE TOTAL THROUGHPUT IS ESTIMATED BASED ON OPERATIONAL DATA 7/2002-6/2004.

Emission Source/Control: SGTTK - Process
Design Capacity: 0.5676 million cubic feet

Item 18.20(From Mod 4):

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

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

Sludge Storage Tanks (SST) process including two (2) sludge storage tanks (SSTK) at 261,000 cubic feet each.

New York State Department of Environmental Conservation

Permit ID: 2-6203-00005/00049

Facility DEC ID: 2620300005



Excessive sludge will be stored in these storage tanks.
The total throughput is estimated base on the operational
data 7/2002 - 6/2004.

Emission Source/Control: OSSTK - Process
Design Capacity: 522,000 cubic feet

