



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 2-6308-00021/02002
Effective Date: 10/17/2014 Expiration Date: 10/16/2024

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

Contact: ALFONSO R LOPEZ
NYC DEPT OF ENVIRONMENTAL PROTECTION
59-17 JUNCTION BLVD
CORONA, NY 11368-5107
(718) 595-5050

Facility: JAMAICA WASTEWATER TREATMENT PLANT
150-20 134TH ST
JAMAICA, NY 11430

Contact: VINCENT SAPIENZA
NYCDEP / BWPC
96-05 HORACE HARDING EXPWY
FLUSHING, NY 11368
(718) 595-4906

Description:

PERMIT DESCRIPTION
NYC-DEP JAMAICA WPCP
DEC ID # 2-6308-00021/02002 (R0, M1) - ASF

The Jamaica WPCP is a municipal wastewater treatment plant capable of providing treatment for 100 million gallon of primary residential wastewater per day.

Under the Jamaica WPCP Phase I improvements project, two wet chemical scrubbers (one operating and one on stand-by) for the five existing sludge thickening tanks are to be installed in a new Odor Control Building. (This system will also provide odor control for a new gravity belt thickener to be installed in Phase II).

Under the Jamaica WPCP Phase II improvements, the following modifications are to be constructed:

1. Demolition of the existing three 400 bhp boilers in the Main Building and replacement with three new 700 bhp (29.29 MM Btu/hr) package boilers (one standby). These new boilers will be housed in a new Boiler Plant addition adjacent to the existing Main Building. The primary fuel for these boilers is natural gas, but the boilers are capable of burning the WWTP's digester gas when the plant's digester's gas is available.



2. Provision of two new 150 bhp (6.28 MM Btu/hr) boilers to be installed in the New Administration Building (one standby). While these boilers are capable of burning digester gas, the primary fuel will be natural gas.
3. Demolition of the existing waste digester gas burners and to be replaced by three new waste digester gas burners.
4. Provision of two new carbon adsorbers to treat off-air from the new Screenings Building.
5. Provision of eight new carbon adsorbers (all operational) to treat off-air from the existing four Sludge Storage Tanks.
6. Demolition of gasoline dispensing pump, diesel dispensing pump, and underground gasoline and diesel storage tanks.

NYC-DEP Jamaica WPCP consists of five emission units: 1-BLERS, 2-WWTRE, 3-SLUDG, 4-WGBRN, and 5-EMGEN. Below is a description of each of these five emission units.

Emission Unit 1-BLERS consists of the plant's boilers for space heating and sludge heating demand. Three new 700 bhp (29.29 MM Btu/hr) package boilers (Emission Sources MBPA1, MBPA2 & MBPA3 - one of which will be standby boiler) will be constructed under Phase II, to replace the three existing 400 bhp (16.74 MM Btu/hr) Cleaver Brooks Main Building boilers (Emission Sources BLER1, BLER2 & BLER3). Two new 150 bhp (6.28 MM Btu/hr) boilers (Emission Sources ADBR1 & ADBR2) will be constructed under Phase II, to serve the New Administration and Maintenance Building.

The two existing 200 bhp (8.37 MM Btu/hr) Sludge Dewatering Building Cleaver Brooks package boilers (Emission Sources DWBR1 & DWBR2) will remain in the Sludge Dewatering Building. The existing boilers and the two new boilers to be installed burn only natural gas, but are capable of burning the WWTP digester's gas when the digester gas is available.

The two existing 200 bhp (8.37 MM Btu/hr) each boilers (Emission Sources DWBR1 & DWBR2) in the Sludge Dewatering Building are operated under Process DWB, their emissions will exit through a stack identified as Emission Point DWBLR.

The three existing 400 bhp (16.74 MM Btu/hr) each boilers (Emission Sources BLER1, BLER2 & BLER3) in the Main Building are operated under Process MBB; their emissions will exit through a stack identified as Emission Point MBBLR.

The two new 150 bhp (6.28 MM Btu/hr) each boilers (Emission Sources ADBR1 & ADBR2) will be constructed in the New Administrative and Maintenance Building and will operate under Process ABB; their emissions will exit through a stack identified as Emission Point AMBR1.



The three new 700 bhp (29.29 MM Btu/hr) each boilers (Emission Sources MBPA1, MBPA2 & MBPA3) will be constructed in the Main Building Addition and will operate under Process MBB; their emissions will exit through a stack identified as Emission Point MBBR1. One of these three boilers will be on standby.

Emission Unit 2-WWTRE includes the Jamaica WPCP's wastewater treatment processes (ART, CCT, EPS, FST, PHW, and PST). The main processes include the headworks (Process PHW), primary settling tanks (Process PST), aeration tanks (Process ART), final settling tanks (Process FST), chlorine disinfection (Process CCT), and effluent pumping station. These processes are generally outdoor and in large tanks.

Emissions from the wastewater processes vary based on the constituents of the plant influent, over which the plant has no control. The emissions are based on current sampling and computer modeling.

Emission Unit 3-SLUDG includes the plant's sludge handling processes. These processes include the following processes:

1. The plant's sludge gravity thickening (SGT) process, which consists of sludge digesters, overflow boxes, and sludge thickeners (SGT). Process SGT is the plant's sludge gravity thickening (SGT) process including five sludge gravity thickeners (Emission Source GTTKS): two at 28,512 cubic feet each and three at 48,743 cubic feet each. The primary and final settling tanks' sludge (approximately 99% water) is concentrated in these thickening tanks. The water is sent back to the head of the plant or aeration tanks for additional treatment. This process also includes the gravity belt thickener which will be constructed in Phase II.

Two wet chemical scrubbers (Emission Controls SCBR1 and SCBR2), one on standby, are installed for H₂S odor control purpose. The wet scrubbers will use chemicals to achieve design H₂S removal efficiency at high H₂S concentration but could achieve adequate H₂S removal by using less or no chemicals at normal H₂S inlet concentration. When the system's two wet scrubbers need to be taken out of service, the gravity thickener tanks' ventilation will exhaust through an existing bypassing stack.

2. The plant's sludge anaerobic digester (SAD) process, which consists of four primary anaerobic digestion tanks (Emission Source PDTKS) at 132,000 cubic feet each, and two secondary digestion tanks (Emission Source SDTKS) at 117,000 cubic feet each.

After sludge gravity thickening, for making it safer for the environment, the sludge is placed in oxygen-free tanks called digesters. Digesters are heated up at least 95 degrees Fahrenheit for between 15-20 days stimulating the growth of anaerobic bacteria which consume organic material in the sludge. In the digester, sludge is converted into water, carbon dioxide and methane gas. The methane gas is often used as an energy source to operate the boilers in EU:1-BLERS. The digested sludge is pumped from digester tanks to the dewatering facilities.

3. The plant's sludge storage tanks (SST) process, which consists of six sludge storage tanks (Emission Source SSTKS) at 125,000 cubic feet each. Digested sludge will be stored in these storage tanks.



Eight small 55-gallons activated carbon drums (Emission Controls DRUM1, DRUM2, DRUM3, DRUM4, DRUM5, DRUM6, DRUM7 and DRUM8) are installed at these six sludge storage tanks for H₂S odor control purpose. These eight small activated carbon drums are connected to Emission Points STCD1, STCD2, STCD3, STCD4, STCD5, STCD6, STCD7 and STCD8; respectively.

4. The plant's sludge dewatering (SDW) process, in which activated carbon adsorption and wet chemical scrubber unit systems are in service at some locations for H₂S odor control.

Process SDW is the plant's sludge dewatering (SDW) process for sludge dewatering (Emission Source DEWAT) in the Dewatering Building. Under this process, sludge is further concentrated by centrifuges to remove water. Wet scrubbers and activated carbon adsorbers are installed for H₂S odor control purpose. Three wet scrubber units (Emission Controls DWBV1, DWBV2 and DWBV3), connected to three stacks identified as Emission Points DEWB1, DEWB2 and DEWB3; respectively, are installed for the building ventilation. The wet scrubbers will use chemicals to achieve design H₂S removal efficiency at high H₂S concentration but could achieve adequate H₂S removal by using less or no chemical at normal low H₂S inlet concentration.

Two double stages systems (Emission Controls DWCV1 and DWCV2), comprised of wet scrubbers followed by activated carbon adsorbers, are installed for ventilation of the centrifuges operation, but only one system is on-line at a time. They are connected to stacks identified as Emission Points DEWC1 and DEWC2, respectively; for ventilation of the centrifuges. The wet scrubbers will use chemicals to achieve design H₂S removal efficiency at high H₂S concentration but could achieve adequate H₂S removal by using less or no chemical at normal low H₂S inlet concentration.

Two methane abatement systems (Emission Sources DWMA1 and DWMA2), connected to stacks identified as Emission Points DEWM1 and DEWM2, are installed to limit and control the concentration of methane or hydrogen sulfide gas below the slab to 10% of the Lower Explosive Limit (LEL).

5. The plant's secondary sludge screening (SSB) process, which consists of sludge screens, dewatered sludge wet wells and pumps (Emission Source SSCRN). Odorous air from this building, as well as from the existing Grit and Storage Building, will be treated in a new activated carbon adsorption system (Emission Controls SSBC1 & SSBC2) outside the building for H₂S and odor control purpose.

Emission Unit 4-WGBRN includes the plant's waste digester gas burners to flare excess sludge digester gas (Process WGB). The existing waste digester gas burners building EWDGBB will be demolished to build a new waste digester gas burners building WDGBB. Three new burners (Emission Sources WGBR1, WGBR2, and WGBR3), connected to Emission Points FLAR1, FLAR2, and FLAR3; respectively, are to be constructed to replace the two existing burners (Emission Sources WGBRA and WBGRB), which are connected to Emission Points FLARA and FLARB; respectively.

Emission Unit 5-EMGEN consists of the plant's emergency power generators. The plant currently has two 1750 KW Caterpillar 3500 emergency generators (Emission Sources



EMGE1 & EMGE2) which fire diesel fuel (Process EMG), and their emissions will exit through a two separate stacks identified as Emission Points EMEG1 & EMEG2; respectively. These emergency generators are located in the Emergency Generator Building. NYC DEP has an agreement with NYSDEC that these two emergency generators may also participate in the CDRP/Peak Load Management Program (grid emergency load shedding) when needed.

The ASF permit contains a complete listing of the applicable federal, state and compliance monitoring requirements for the facility, its emission units, emission points, and its processes. NYC-DEP Jamaica WPCP is subject to the following:

1. In order to comply with 6 NYCRR 201-7.2, annual NO_x emissions will be determined by record of all fuel consumption and emission factors presented in the potential to emit (PTE) calculations to demonstrate compliance of the plant-wide NO_x emission limit of 24.9 tons per year. NYC-DEP Jamaica WPCP will accept a cap of 24.9 tons per year on plant-wide NO_x emission limit in order to not to trigger Title V threshold requirements. The plant's wide NO_x emission cap of 24.9 tons per year will result from the following operations:

- A. The boilers in Emission Unit 1-BLERS,
- B. The plant's waste digester's gas burners to flare excess sludge in Emission Unit 4-WGBRN, and
- C. The plant's two emergency power generators in Emission Unit 5-EMGEN.

2. The plant-wide VOC emission is limited to 24.9 tons per year. The facility is required to monitor the VOC emission from the wastewater treatment (Emission Unit 2-WWTRE) at a minimum of once per calendar year.

3. The plant-wide HAPs emission is limited to any individual HAP emission to under 10 tons per year, and the annual total HAPs emission to under 24.9 tons per year.

4. In order to comply with 6 NYCRR 227-1.3(a), all of the boilers will comply with the opacity limit of 20 % using Good Engineering Practice and will be operated and maintained in accordance with the manufacturer's recommended operation and maintenance procedures in order to comply with 6 NYCRR 227-1.3(a).

5. In order to comply with 6 NYCRR 202, annual HAPs emission and annual VOC emission from wastewater stream will be estimated using Toxchem + fate model with influent sampling data by USEPA 600 series methods. Emissions from the Jamaica WPCP's dewatering facility will be estimated to be the same as results of stack tests conducted at a similar dewatering facility, the Bowery Bay WPCP dewatering facility (NYC-DEP Bowery Bay WPCP, DEC ID # 2-6301-00008/02003).

6. NO_x emission factor of 40.8 lb/MM scft for the digester gas fired from the flares must be demonstrated through a stack test. Stack test must be conducted within 12 months (one anniversary year) of permit issuance. DEP must submit to NYSDEC the stack testing protocol within 90 days of permit issuance.



7. Through NYC DCAS (New York City Department of Citiwide Administrative Service), the permittee shall retain fuel oil supplier certifications for each shipment of oil received. Such certifications shall contain, as a minimum: supplier name, date of shipment, quantity shipped, oil sulfur content, and the method used to determine the sulfur content. Such certifications shall be available for inspection by, or submittal to, NYSDEC upon request.

8. In order to comply with 6 NYCRR 225-1.6(b), for NYC-DEP Jamaica WPCP, NYC DCAS is required to meet and supply the ultra low sulfur content of 0.0015 % by weight for distillate fuel oils by July 1, 2014 in order to meet the regulatory limit of 0.0015 % sulfur content by weight.

The facility operates other sources which are considered exempt from permitting in accordance with 6 NYCRR 201-3.2(c), including two distillate fuel oil storage tanks with storage capacities <300,000 bbls. in the EMGB (Emergency Generator Building) and in the DWB (Sludge Dewatering Building), and two emergency power generators (<500 hours/year) located outdoor.

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 - REGION 2
 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
- 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 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 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: 2-6308-00021/02002

Facility DEC ID: 2630800021



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 5TH FL
CORONA, NY 11368

Facility: JAMAICA WASTEWATER TREATMENT PLANT
150-20 134TH ST
JAMAICA, NY 11430

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

Permit Effective Date: 10/17/2014

Permit Expiration Date: 10/16/2024



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6 NYCRR 201-3.2 (c): Compliance Demonstration
- 2 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 3 6 NYCRR 201-7.1: Facility Permissible Emissions
- *4 6 NYCRR 201-7.1: Capping Monitoring Condition
- *5 6 NYCRR 201-7.1: Capping Monitoring Condition
- *6 6 NYCRR 201-7.1: Capping Monitoring Condition
- *7 6 NYCRR 201-7.1: Capping Monitoring Condition
- 8 6 NYCRR Subpart 202-2: Compliance Demonstration
- 9 6 NYCRR 211.1: Air pollution prohibited
- 10 6 NYCRR Part 212: Compliance Demonstration
- 11 6 NYCRR Part 212: Compliance Demonstration
- 12 6 NYCRR 225-1.2 (g): Compliance Demonstration
- 13 6 NYCRR 225-1.2 (h): Compliance Demonstration
- 14 6 NYCRR 225-1.6: Compliance Demonstration
- 15 6 NYCRR 225-1.6 (b): Compliance Demonstration

Emission Unit Level

EU=1-BLERS,EP=MBBR1,Proc=MBB,ES=MBPA1

- 16 40CFR 60.40c, NSPS Subpart Dc: Applicability of this Subpart to this emission source
- 17 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Demonstration

EU=1-BLERS,EP=MBBR1,Proc=MBB,ES=MBPA2

- 18 40CFR 60.40c, NSPS Subpart Dc: Applicability of this Subpart to this emission source

EU=1-BLERS,EP=MBBR1,Proc=MBB,ES=MBPA3

- 19 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Demonstration

EU=2-WWTRE,Proc=PST

- 20 6 NYCRR Part 212: Compliance Demonstration
- 21 6 NYCRR Part 212: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 22 ECL 19-0301: Contaminant List
- 23 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 24 6 NYCRR Subpart 201-5: Emission Unit Definition
- 25 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 26 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 27 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

- 28 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 29 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



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 1: Compliance Demonstration



Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement: 6 NYCRR 201-3.2 (c)

Item 1.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

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

Item 1.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The two identical 1750 KW each Caterpillar Model 3500 plant's diesel fuel (Process EMG) emergency generators (Emission Sources EMGE1 & EMGE2) in Emission Unit 5-EMGEN are exempt from NYSDEC permitting in accordance with 6 NYCRR 201-3.1(b) and 3.2(c)(6).

These emergency generators are located in the Emergency Generator Building. These emergency generators may also participate in the Peak Load Management Program when needed. DEP has an agreement with NYSDEC that these emergency generators may be used for grid emergency load shedding when needed.

6 NYCRR 201-3.2(c)(6):

Emergency power generating stationary internal combustion engines as defined in 200.1(cq) and engine test cells at engine manufacturing facilities that are utilized for research and development, reliability performance testing, or quality assurance performance testing.

6 NYCRR 200.1(cq):

Emergency power generating stationary internal combustion engine. A stationary internal combustion engine that operates as a mechanical or electrical power source only when the usual supply of power is unavailable, and operates for no more than 500 hours per year. The 500 hours of annual operation for the engine include operation during emergency situations, routine maintenance, and routine exercising (for example, test firing the engine for one hour a week to ensure reliability). A stationary internal combustion engine used for peak shaving generation is not an emergency power generating stationary internal combustion engine.

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Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 500 hours

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 1/30/2015.

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

**Condition 2: Non Applicable requirements
Effective between the dates of 10/17/2014 and 10/16/2024**

Applicable Federal Requirement:6 NYCRR 201-6.4 (g)

Item 2.1:

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

6 NYCRR Subpart 231-2

Reason: Facility-wide emissions are capped at 24.9 tons per year for NO_x, VOC, and HAPs. Therefore, this facility is not subject to New Source Review Requirements (6 NYCRR 231-2).

40 CFR Part 60, Subpart Dc

Reason: 40 CFR 60 Subpart Dc - Standards of Performance, is only applicable to small industrial-commercial-institutional steam generating units. Therefore, NYC-DEP Jamaica WPCP must comply with the 0.20 percent by weight sulfur content limit in the distillate oil till June 30, 2014 and 0.0015 percent by weight sulfur content limit thereafter in the severe ozone non-attainment area such as New York City, as per 6 NYCRR 225-1.2(b).

This facility shall not combust diesel fuel oil in the two emergency power generators, 1750 KW Caterpillar each (Emission Sources EMGE1 & EMGE2) with a sulfur content in excess of 0.20 percent by weight till June 30, 2014 and 0.0015 percent by weight thereafter.



40 CFR 60.42c (d)
Emission Unit: 5EMGEN
Reason: 40 CFR 60-Dc.42c(d), NSPS, Standard for Sulfur Dioxide firing oil, which limits the sulfur content in the oil to 0.5 percent by weight is not applicable to power generator engines. 40 CFR 60 Subpart Dc - Standards of Performance, is only applicable to small industrial-commercial-institutional steam generating units. Therefore, NYC-DEP Jamaica WPCP must comply with the 0.20 percent by weight sulfur content limit till June 30, 2014 and with the 0.0015 percent by weight sulfur content limit thereafter, in the severe ozone non-attainment area such as New York City, as per 6 NYCRR 225-1.2(b).

This facility shall not combust diesel fuel oil in the two emergency power generators, 1750 KW Caterpillar each (Emission Sources EMGE1 & EMGE2) with a sulfur content in excess of 0.20 percent by weight till June 30, 2014 and 0.0015 percent by weight thereafter.

40 CFR 60.48c (f) (1)
Emission Unit: 5EMGEN
Reason: 40 CFR 60-Dc.48c(f)(1), NSPS, Reporting and Recordkeeping Requirements which limits the sulfur content in the oil to 0.5 percent by weight is not applicable to the two emergency power generator engines, 1750 KW Caterpillar each (Emission Sources EMGE1 & EMGE2). This facility shall not combust diesel fuel oil in the two emergency power generators, 1750 KW Caterpillar each (Emission Sources EMGE1 & EMGE2) with a sulfur content in excess of 0.20 percent by weight till June 30, 2014 and 0.0015 percent by weight thereafter.

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40 CFR Part 60, Subpart IIII

Reason: 40 CFR 60.Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is not applicable to this facility because the two emergency generators at the Jamaica Wastewater Treatment Plant were installed prior to April 1, 2006. These two identical emergency generators are 1750 KW each Caterpillar Model 3500 stationary RICE (Emission Sources EMGE1 & EMGE2) and are 1993 model and were installed before June 12, 2006.. This regulation's applicability date is April 1, 2006. Both engines are RICE - Reciprocating Internal Combustion Engines.

40 CFR Part 63, Subpart ZZZZ

Reason: 40 CFR 63.Subpart ZZZZ is not applicable to this facility because the two existing emergency stationary RICE two identical 1750 KW each Caterpillar Model 3500 emergency generators (Emission Sources EMGE1 & EMGE2) are 1993 model and were installed before June 12, 2006.

Condition 3: Facility Permissible Emissions
Effective between the dates of 10/17/2014 and 10/16/2024

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 between the dates of 10/17/2014 and 10/16/2024

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 Subpart 201-6
6 NYCRR Subpart 231-2

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:
The Compliance Demonstration applies to:

Emission Unit: 1-BLERS Process: ABB	Emission Point: AMBR1 Emission Source: ADBR1
Emission Unit: 1-BLERS Process: ABB	Emission Point: AMBR1 Emission Source: ADBR2
Emission Unit: 1-BLERS Process: DWB	Emission Point: DWBLR Emission Source: DWBR1
Emission Unit: 1-BLERS Process: DWB	Emission Point: DWBLR Emission Source: DWBR2



Emission Unit: 1-BLERS Process: MBB	Emission Point: MBBR1 Emission Source: MBPA1
Emission Unit: 1-BLERS Process: MBB	Emission Point: MBBR1 Emission Source: MBPA2
Emission Unit: 1-BLERS Process: MBB	Emission Point: MBBR1 Emission Source: MBPA3
Emission Unit: 4-WGBRN Process: WGB	Emission Point: FLAR1 Emission Source: WGBR1
Emission Unit: 4-WGBRN Process: WGB	Emission Point: FLAR2 Emission Source: WGBR2
Emission Unit: 4-WGBRN Process: WGB	Emission Point: FLAR3 Emission Source: WGBR3
Emission Unit: 5-EMGEN Process: EMG	Emission Point: EMEG1 Emission Source: EMGE1
Emission Unit: 5-EMGEN Process: EMG	Emission Point: EMEG2 Emission Source: EMGE2
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: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

NYC-DEP Jamaica WPCP will accept a cap of 24.9 tons per year on plant-wide NO_x emission limit in order to not to trigger Title V threshold requirements.

The owner or operator of this facility shall calculate NO_x emissions (based on the fuel quantities) using the following formula:

$DO(0.25) + NG(35) + DG(25.7) + FL(27.5) < 49,800$ lbs/yr of NO_x emissions

where:

DO = 12-month rolling total of distillate oil fired (diesel oil fired in two emergency generators, ES: EMGE1 & EMGE2 in EU: 5-EMGEN) in gallons/year; emission factor of 0.25 is proposed by the applicant in lb/gallon. Stack



test is required to confirm this emission factor.

NG = 12-month rolling total of natural gas fired as a secondary fuel in all the boilers, ES: ADBR1, ADBR2, DWBR1, DWBR2, MBPA1, MBPA2 & MBPA3 in EU: 1-BLERS in MM SCF/yr; emission factor of 35 is proposed by the applicant in lb/MM SCF (based on 1,000 Btu/SCF heat content). Stack test is required to confirm this emission factor.

DG = 12-month rolling total of digester gas as the primary fuel fired in all the boilers, ES: ADBR1, ADBR2, DWBR1, DWBR2, MBPA1, MBPA2 & MBPA3 in EU: 1-BLERS in MM SCF/yr; Emission factor of 25.7 is proposed by the applicant in lb/MM SCF (based on 600 Btu/SCF heat content). Stack test is required to confirm this emission factor.

FL = 12-month rolling total of digester gas fired (from 3 enclosed type waste gas burner flares, ES: WGBR1, WGBR2 & WGBR3 in EU: 4-WGBRN) in MM SCF/yr; Emission factor of 27.5 is proposed by the applicant in lb/ MM SCF (based on 550 Btu/SCF heat content). Stack test is required to confirm this emission factor.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

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 1/30/2015.

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

Condition 5: Capping Monitoring Condition
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR 201-7.1

Item 5.1:

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 5.2:

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

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Item 5.3:

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 5.4:

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 5.5:

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 5.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY100-00-0 TOTAL HAP

Item 5.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The Waste Water Treatment Plant-wide total Hazardous Air pollutants (HAPs) emission is limited to 24.9 tons per year, and any individual HAP is capped at 9.9 tons per year. The facility is required to monitor the HAPs emission from the wastewater treatment (Emission Unit 2-WWTRE) at a minimum of once per calendar year.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: WASTEWATER

Parameter Monitored: TOTAL HAP

Upper Permit Limit: 24.9 tons per year

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 1/30/2015.

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

Condition 6: Capping Monitoring Condition



Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR 201-7.1

Item 6.1:

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 6.2:

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

Item 6.3:

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 6.4:

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 6.5:

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 6.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 6.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The plant-wide VOC emission is limited to 24.9 tons per year. The facility is required to monitor the VOC

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emission from the wastewater treatment (Emission Unit 2-WWTRE) at a minimum of once per calendar year.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: WASTEWATER

Parameter Monitored: VOC

Upper Permit Limit: 24.9 tons per year

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 1/30/2015.

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

Condition 7: Capping Monitoring Condition
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement: 6 NYCRR 201-7.1

Item 7.1:

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 7.2:

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

Item 7.3:

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 7.4:

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 7.5:

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.

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Item 7.6:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: 1-BLERS Process: ABB	Emission Point: AMBR1 Emission Source: ADBR1
Emission Unit: 1-BLERS Process: ABB	Emission Point: AMBR1 Emission Source: ADBR2
Emission Unit: 1-BLERS Process: DWB	Emission Point: DWBLR Emission Source: DWBR1
Emission Unit: 1-BLERS Process: DWB	Emission Point: DWBLR Emission Source: DWBR2
Emission Unit: 1-BLERS Process: MBB	Emission Point: MBBR1 Emission Source: MBPA1
Emission Unit: 1-BLERS Process: MBB	Emission Point: MBBR1 Emission Source: MBPA2
Emission Unit: 4-WGBRN Process: WGB	Emission Point: FLAR1 Emission Source: WGBR1
Emission Unit: 4-WGBRN Process: WGB	Emission Point: FLAR2 Emission Source: WGBR2
Emission Unit: 4-WGBRN Process: WGB	Emission Point: FLAR3 Emission Source: WGBR3
Emission Unit: 5-EMGEN Process: EMG	Emission Point: EMEG1 Emission Source: EMGE1
Emission Unit: 5-EMGEN Process: EMG	Emission Point: EMEG2 Emission Source: EMGE2
Regulated Contaminant(s): CAS No: 0NY210-00-0	OXIDES OF NITROGEN

Item 7.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Annual NOx emissions will be determined by record of all fuel consumption and emission factors presented in the potential to emit (PTE) calculations to demonstrate compliance of the plant-wide NOx emission limit of 24.9 tons per year.

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NYC-DEP Jamaica WPCP will accept a cap of 24.9 tons per year on plant-wide NOx emission limit in order to not to trigger Title V threshold requirements.

The plant's wide NOx emission cap of 24.9 tons per year will result from the following operations:

1. The boilers in Emission Unit 1-BLERS,
2. The plant's waste digester's gas burners to flare excess sludge in Emission Unit 4-WGBRN, and
3. The plant's two emergency power generators in Emission Unit 5-EMGEN.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NATURAL GAS

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 24.9 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL TOTAL ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2015.

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

Condition 8: Compliance Demonstration
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR Subpart 202-2

Item 8.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

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

Item 8.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

To cap out of Title V, the facility is limiting the plant-wide NOx emission to 24.9 tons per year. Monthly records reflecting a twelve-month rolling average will be maintained for a period of five years to ensure that the emissions are within allowable limit of this cap.

The provisions of 6 NYCRR Subpart 202-2 apply to this facility. Any owner or operator of a facility in a non-attainment area for ozone must submit an emission statement to the Department for any calendar year in which



the facility has the potential to emit any regulated air pollutant listed in Table 1 of 6 NYCRR 202-2.1, at a rate which equals or exceeds the following applicable threshold:

Table 1

Facility Reporting Thresholds - Non-attainment Areas

Air Contaminant (tons/year)	Threshold
Volatile Organic Compounds (VOC)	25
Oxides of Nitrogen (NOx)	25
Carbon Monoxide (CO)	100
Sulfur Dioxide (SO2)	100
Particulate Matter	100
PM-10 (diameter < 10 microns)	100
Lead and its compounds (measured as elemental lead)	5
Any one hazardous air pollutants	10
Combination of hazardous air pollutants	25
Any other regulated air pollutant	100

Parameter Monitored: OXIDES OF NITROGEN
 Upper Permit Limit: 24.9 tons per year
 Reference Test Method: Keep Records
 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 1/30/2015.
 Subsequent reports are due every 12 calendar month(s).

Condition 9: Air pollution prohibited
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR 211.1

Item 9.1:
 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 10: Compliance Demonstration
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement: 6 NYCRR Part 212

Item 10.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY100-00-0 TOTAL HAP

Item 10.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The plant-wide HAPs emission is limited to any individual HAP emission to under 10 tons per year, and the annual total HAPs emission to under 24.9 tons per year.

Annual HAPs emission from wastewater stream will be estimated using TOXCHEM + FATE MODEL with influent sampling data by USEPA 600 series methods. The HAPs in the target compound list will be sampled at the influent at a minimum of once per calendar year. Emissions from the Jamaica WPCP's dewatering facility will be estimated to be the same as results of stack tests conducted at a similar dewatering facility, the Bowery Bay WPCP (NYC-DEP Bowery Bay WPCP, DEC ID # 2-6301-00008/02003).

The TOXCHEM + MODEL includes the following HAPs:

CAS No. Contaminant Name

000071-43-2: Benzene

000075-25-2: Bromoform

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000056-23-5: Carbon Tetrachloride
000108-90-7: Chlorobenzene
000067-66-3: Chloroform
000075-09-2: Dichloromethane
000075-00-3: Ethane, Chloro
000075-35-4: Ethene, 1, 1-Dichloro
000100-41-4: Ethylbenzene
000074-83-9: Methyl Bromide
000074-87-3: Methyl Chloride
000091-20-3: Naphthalene
000127-18-4: Perchloroethylene
000108-88-3: Toluene
000079-01-6: Trichloroethylene
000075-01-4: Vinyl Chloride
000106-42-3 : Xylene, Para-
000075-34-3: Ethane, 1,
1-Dichloro-
000107-06-2: 1,2-Dichloroethane
000078-87-5: Propane, 1, 2-Dichloro
000106-46-7: Benzene, 1, 4-Dichloro-
000079-34-5: 1,1,2,2-Tetrachloroethane
000071-55-6: Ethane, 1, 1, 1-Trichloro
000079-00-5: Ethane, 1, 1, 2-Trichloro

Parameter Monitored: TOTAL HAP

Upper Permit Limit: 24.9 tons per year

Reference Test Method: USEPA 600 SERIES

Monitoring Frequency: MINIMUM - ONCE PER CALENDAR YEAR

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)



Reports due 30 days after the reporting period.
The initial report is due 1/30/2015.
Subsequent reports are due every 12 calendar month(s).

Condition 11: Compliance Demonstration
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR Part 212

Item 11.1:

The Compliance Demonstration activity will be performed for the Facility.

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

Item 11.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The facility is limiting the annual
total VOC emission to under 24.9 tons per
year.

Annual VOC emission from wastewater
stream will be estimated using TOXCHEM +
FATE MODEL with influent sampling data by
USEPA 600 series methods. The VOC in the
target compound list will be sampled at
the influent at a minimum of once per
calendar year. Emissions from the Jamaica
WPCP's dewatering facility will be
estimated to be the same as results of
stack tests conducted at a similar
dewatering facility, the Bowery Bay WPCP
(NYC-DEP Bowery Bay WPCP, DEC ID #
2-6301-00008/02003).

The TOXCHEM + MODEL includes the
following VOC:

CAS No.	Contaminant Name
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000071-43-2:	Benzene
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000075-25-2:	Bromoform
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000056-23-5:	Carbon Tetrachloride
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000108-90-7:	Chlorobenzene
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000067-66-3: Chloroform
000075-09-2: Dichloromethane
000075-00-3: Ethane, Chloro
000075-35-4: Ethene, 1, 1-Dichloro
000100-41-4: Ethylbenzene
000074-83-9: Methyl Bromide
000074-87-3: Methyl Chloride
000091-20-3: Naphthalene
000127-18-4: Perchloroethylene
000108-88-3: Toluene
000079-01-6: Trichloroethylene
000075-01-4: Vinyl Chloride
000106-42-3 : Xylene, Para-
000075-34-3: Ethane, 1,
1-Dichloro-
000107-06-2: 1,2-Dichloroethane
000078-87-5: Propane, 1, 2-Dichloro
000106-46-7: Benzene, 1, 4-Dichloro-
000079-34-5:
1,1,2,2-Tetrachloroethane
000071-55-6: Ethane, 1, 1, 1-Trichloro
000079-00-5: Ethane, 1, 1, 2-Trichloro

Parameter Monitored: VOC

Upper Permit Limit: 24.9 tons per year

Reference Test Method: USEPA 600 SERIES

Monitoring Frequency: MINIMUM - ONCE PER CALENDAR YEAR

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -

SEE MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2015.

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

Condition 12: Compliance Demonstration



Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR 225-1.2 (g)

Item 12.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 12.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Owners and/or operators of a stationary combustion installation that fires distillate oil other than number two heating oil are limited to the purchase of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2014. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.0015 percent by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 13: Compliance Demonstration

Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR 225-1.2 (h)

Item 13.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 13.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

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Facility DEC ID: 2630800021



Monitoring Description:

Owners and/or operators of a stationary combustion installations that fire distillate oil are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2016. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.0015 percent by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 14: Compliance Demonstration

Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement: 6 NYCRR 225-1.6

Item 14.1:

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

Emission Unit: 1-BLERS

Emission Unit: 5-EMGEN

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 14.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Purchase of fuel oil for all NYC agencies is conducted and managed by NYC DCAS (New York City Department of Citiwide Administrative Service). This monitoring service is responsible for delivering fuel to the source, and



meeting the low sulfur monitoring requirement.

DEP proposes that the DCAS monitoring program be adopted as the method for meeting the ultra low sulfur monitoring requirement.

Through NYC DCAS, the permittee shall retain fuel oil supplier certifications for each shipment of oil received.

Such certifications shall contain, as a minimum: supplier name, date of shipment, quantity shipped, oil sulfur content, and the method used to determine the sulfur content. Such certifications shall be available for inspection by, or submittal to, NYSDEC upon request.

On or after July 1, 2014, all New York City service contracts require supplier to provide fuel oils that meet the ultra low sulfur content requirement of 0.0015 by weight for ultra low sulfur distillate fuel oils. Upon each oil delivery, the oil supplier must provide a certificate that the oil delivered meets the 0.0015% by weight sulfur content limitation. NYCDEP must report annually to NYSDEC all the oil sulfur standard exceedences that occurred during the reporting year.

For NYC-DEP Jamaica WPCP, NYC DCAS is required to meet and supply the ultra low sulfur content of 0.0015 % by weight for distillate fuel oils in order to meet the regulatory limit of 0.0015 % sulfur content by weight on or after July 1, 2014.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.0015 percent by weight
Reference Test Method: ASTM D4951
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2015.
Subsequent reports are due every 12 calendar month(s).

Condition 15: Compliance Demonstration
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement: 6 NYCRR 225-1.6 (b)

Item 15.1:

The Compliance Demonstration activity will be performed for the Facility.



Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 15.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Purchase of fuel oil for all NYC agencies is conducted and managed by NYC DCAS (New York City Department of Citiwide Administrative Service). This monitoring service is responsible for delivering fuel to the source, and meeting the low sulfur monitoring requirement.

DEP proposes that the DCAS monitoring program be adopted as the method for meeting the low sulfur monitoring requirement.

Through NYC DCAS, the permittee shall retain fuel oil supplier certifications for each shipment of oil received.

Such certifications shall contain, as a minimum: supplier name, date of shipment, quantity shipped, oil sulfur content, and the method used to determine the sulfur content. Such certifications shall be available for inspection by, or submittal to, NYSDEC upon request.

All New York City service contracts require supplier to provide fuel oils that meet the low sulfur content requirement of 0.20% by weight for distillate fuel oils. Upon each oil delivery, the oil supplier must provide a certificate that the oil delivered meets the 0.20% by weight sulfur content limitation. NYCDEP must report annually to NYSDEC all the oil sulfur standard exceedences that occurred during the reporting year.

For NYC-DEP Jamaica WPCP, NYC DCAS is required to meet and supply the low sulfur content of 0.20 % by weight for distillate fuel oils in order to meet the regulatory limit of 0.20 % sulfur content by weight.

The distillate oil is used in the plant's two emergency power engine generators (1750 KW Caterpillar 3500 each) that are identified as Emission Sources EMGE1 & EMGE2 in Emission Unit 5EMGEN. These two emission sources fire ultra low sulfur diesel fuel oil.

For NYC-DEP Jamaica WPCP, NYC DCAS is required to meet and supply the ultra low sulfur content of 0.0015 % by weight for distillate fuel oils in order to meet the regulatory

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Permit ID: 2-6308-00021/02002

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limit of 0.0015 % sulfur content by weight on or after
July 1, 2014.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.0015 percent by weight
Reference Test Method: ASTM D4951
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY
TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2015.
Subsequent reports are due every 12 calendar month(s).

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

**Condition 16: Applicability of this Subpart to this emission source
Effective between the dates of 10/17/2014 and 10/16/2024**

Applicable Federal Requirement:40CFR 60.40c, NSPS Subpart Dc

Item 16.1:

This Condition applies to Emission Unit: 1-BLERS Emission Point: MBBR1
Process: MBB Emission
Source: MBPA1

Item 16.2:

This emission source is subject to the applicable General Provisions of 40 CFR 60 Subpart Dc.
The facility owner is responsible for reviewing these general provisions in detail and complying
with all applicable technical, administrative and reporting requirements.

**Condition 17: Compliance Demonstration
Effective between the dates of 10/17/2014 and 10/16/2024**

Applicable Federal Requirement:40CFR 60.48c(a), NSPS Subpart Dc

Item 17.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-BLERS Emission Point: MBBR1
Process: MBB Emission Source: MBPA1

Item 17.2:

Compliance Demonstration shall include the following monitoring:

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Item 19.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner and operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c., or 40 CFR 60.43c.
- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 20: Compliance Demonstration
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR Part 212

Item 20.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 2-WWTRE
Process: PST

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

Item 20.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The plant-wide HAPs emission is limited to any individual HAP emission to under 10 tons per year, and the annual total HAPs emission to under 24.9 tons per



year.

Annual HAPs emission from wastewater stream will be estimated using TOXCHEM + FATE MODEL with influent sampling data by USEPA 600 series methods. The HAPs in the target compound list will be sampled at the influent at a minimum of once per calendar year. Emissions from the Jamaica WPCP's dewatering facility will be estimated to be the same as results of stack tests conducted at a similar dewatering facility, the Bowery Bay WPCP (NYC-DEP Bowery Bay WPCP, DEC ID # 2-6301-00008/02003).

The TOXCHEM + MODEL includes the following HAPs:

CAS No.	Contaminant Name
000071-43-2:	Benzene
000075-25-2:	Bromoform
000056-23-5:	Carbon Tetrachloride
000108-90-7:	Chlorobenzene
000067-66-3:	Chloroform
000075-09-2:	Dichloromethane
000075-00-3:	Ethane, Chloro
000075-35-4:	Ethene, 1, 1-Dichloro
000100-41-4:	Ethylbenzene
000074-83-9:	Methyl Bromide
000074-87-3:	Methyl Chloride
000091-20-3:	Naphthalene
000127-18-4:	Perchloroethylene
000108-88-3:	Toluene
000079-01-6:	Trichloroethylene
000075-01-4:	Vinyl Chloride

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Permit ID: 2-6308-00021/02002

Facility DEC ID: 2630800021



000106-42-3 : Xylene, Para-

000075-34-3: Ethane, 1,
1-Dichloro-

000107-06-2: 1,2-Dichloroethane

000078-87-5: Propane, 1, 2-Dichloro

000106-46-7: Benzene, 1, 4-Dichloro-

000079-34-5: 1,1,2,2-Tetrachloroethane

000071-55-6: Ethane, 1, 1,

1-Trichloro 000079-00-5:

Ethane, 1, 1, 2-Trichloro

Parameter Monitored: TOTAL HAP

Upper Permit Limit: 24.9 tons per year

Reference Test Method: USEPA Approved Methods

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2015.

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

Condition 21: Compliance Demonstration

Effective between the dates of 10/17/2014 and 10/16/2024

Applicable Federal Requirement:6 NYCRR Part 212

Item 21.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 2-WWTRE

Process: PST

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 21.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The facility is limiting the annual
total VOC to under 24.9 tons per
year.

Annual VOC emission from wastewater



stream will be estimated using TOXCHEM + FATE MODEL with influent sampling data by USEPA 600 series methods. The VOC in the target compound list will be sampled at the influent at a minimum of once per calendar year. Emissions from the Jamaica WPCP's dewatering facility will be estimated to be the same as results of stack tests conducted at a similar dewatering facility, the Bowery Bay WPCP (NYC-DEP Bowery Bay WPCP, DEC ID # 2-6301-00008/02003).

The TOXCHEM + MODEL includes the following VOC:

CAS No.	Contaminant Name
000071-43-2:	Benzene
000075-25-2:	Bromoform
000056-23-5:	Carbon Tetrachloride
000108-90-7:	Chlorobenzene
000067-66-3:	Chloroform
000075-09-2:	Dichloromethane
000075-00-3:	Ethane, Chloro
000075-35-4:	Ethene, 1, 1-Dichloro
000100-41-4:	Ethylbenzene
000074-83-9:	Methyl Bromide
000074-87-3:	Methyl Chloride
000091-20-3:	Naphthalene
000127-18-4:	Perchloroethylene
000108-88-3:	Toluene
000079-01-6:	Trichloroethylene
000075-01-4:	Vinyl Chloride
000106-42-3 :	Xylene, Para-

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000075-34-3: Ethane, 1,
1-Dichloro-
000107-06-2: 1,2-Dichloroethane

000078-87-5: Propane, 1, 2-Dichloro

000106-46-7: Benzene, 1, 4-Dichloro-

000079-34-5: 1,1,2,2-Tetrachloroethane

000071-55-6: Ethane, 1, 1,
1-Trichloro 000079-00-5:
Ethane, 1, 1, 2-Trichloro

Parameter Monitored: VOC

Upper Permit Limit: 24.9 tons per year

Reference Test Method: USEPA Approved Method

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2015.

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: 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 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.

Condition 22: Contaminant List
Effective between the dates of 10/17/2014 and 10/16/2024



Applicable State Requirement:ECL 19-0301

Item 22.1:

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

CAS No: 007446-09-5
Name: SULFUR DIOXIDE

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 23: Malfunctions and start-up/shutdown activities
Effective between the dates of 10/17/2014 and 10/16/2024**

Applicable State Requirement:6 NYCRR 201-1.4

Item 23.1:

(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 24: Emission Unit Definition
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 24.1:

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

Emission Unit: 1-BLERS

Emission Unit Description:

Emission Unit 1-BLERS consists of the plant's boilers for space heating and sludge heating demand. Three new 700 bhp (29.29 MM Btu/hr) package boilers (Emission Sources MBPA1, MBPA2 & MBPA3 - one standby boiler) will be constructed under Phase II, to replace the three existing 400 bhp (16.74 MM Btu/hr) Cleaver Brooks Main Building boilers (Emission Sources BLER1, BLER2 & BLER3). Two new 150 bhp (6.28 MM Btu/hr) boilers (Emission Sources ADBR1 & ADBR2) will be constructed on 4/12/2007 under Phase II, to serve the New Administration and Maintenance Building.

The two existing 200 bhp (8.37 MM Btu/hr) Sludge Dewatering Building Cleaver Brooks package boilers (Emission Sources DWBR1 & DWBR2) will remain in the Sludge Dewatering Building. The primary fuel for these boilers is natural gas, but the boilers are capable of burning the plant's digester gas when the WWTP digester's gas is available.

The two existing 200 bhp (8.37 MM Btu/hr) each boilers (Emission Sources DWBR1 & DWBR2) in the Sludge Dewatering Building, operate under Process DWB, and their emissions will exit through a stack identified as Emission Point DWBLR.

The three existing 400 bhp (16.74 MM Btu/hr) each boilers (Emission Sources BLER1, BLER2 & BLER3) in the Main Building, operate under Process MBB, their emissions will exit through a stack identified as Emission Point MBBLR.

The two new 150 bhp (6.28 MM Btu/hr) each boilers (Emission Sources ADBR1 & ADBR2) will be constructed in the New Administrative and Maintenance Building, will



operate under Process ABB, and their emissions will exit through a stack identified as Emission Point AMBR1.

The three new 700 bhp (28.576 MM Btu/hr) each boilers (Emission Sources MBPA1, MBPA2 & MBPA3) will be constructed in the Main Building Addition, will operate under Process MBB, and their emissions will exit through a stack identified as Emission Point MBBR1. One of these three boilers will be on standby.

Building(s): ADMIN
 DWB
 MAIN-ADD

Item 24.2:

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

Emission Unit: 2-WWTRE

Emission Unit Description:

Emission Unit 2-WWTRE includes the Jamaica WPCP's wastewater treatment processes (ART, CCT, EPS, FST, PHW, and PST). The main processes include the headworks (Process PHW), primary settling tanks (Process PST), aeration tanks (Process ART), final settling tanks (Process FST), chlorine disinfection (Process CCT), and effluent pumping station. These processes are generally outdoor and in large tanks.

Emissions from the wastewater processes vary based on the constituents of the plant influent, over which the plant has no control. The emissions are based on current sampling and computer modeling.

Process Emission Point	Emission Source Control	Emission
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ART None (Aeration Tank)	None	AERTK
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CCT None (Chlorine Disinfection)	None	CCTNK
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EPS None	None	EFFPS
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FST None FNSTK
None
(Final settling Tank)

PHW None OMSPS
None
(Main Process)

Building(s): OUTDOOR

Item 24.3:

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

Emission Unit: 3-SLUDG

Emission Unit Description:

Emission Unit 3-SLUDG includes the plant's sludge handling processes. These processes include the following processes:

1. The plant's sludge gravity thickening (SGT) process, which consists of sludge digesters, overflow boxes, and sludge thickeners (SGT). Process SGT is the plant's sludge gravity thickening (SGT) process including five sludge gravity thickeners (Emission Source GTTKS): two at 28,512 cubic feet each and three at 48,743 cubic feet each. The primary and final settling tanks' sludge (approximately 99% water) is concentrated in these thickening tanks. The water is sent back to the head of the plant or aeration tanks for additional treatment. This process also includes the gravity belt thickener which will be constructed in Phase II.

Two wet chemical scrubbers (Emission Controls SCBR1 and SCBR2), one on standby, are installed for H₂S odor control purpose. The wet scrubbers will use chemicals to achieve design H₂S removal efficiency at high H₂S concentration but could achieve adequate H₂S removal by using less or no chemical at normal low H₂S inlet concentration. When the gravity thickener tanks two odor-control wet scrubbers need to be taken out of service, the gravity thickeners tanks ventilation will exhaust through an existing bypass stack.

2. The plant's sludge anaerobic digester (SAD) process, which consists of four primary anaerobic digestion tanks (Emission Source PDTKS) at 132,000 cubic feet each, and



two secondary digestion tanks (Emission Source SDTKS) at 117,000 cubic feet each.

After sludge gravity thickening, for making it safer for the environment, the sludge is placed in oxygen-free tanks called digesters. Digesters are heated up at least 95 degrees Fahrenheit for between 15-20 days stimulating the growth of anaerobic bacteria which consume organic material in the sludge. In the digester, sludge is converted into water, carbon dioxide and methane gas. The methane gas is often used as an energy source to operate the boilers in EU:1-BLERS. The digested sludge is pumped from digester tanks to the dewatering facilities.

3. The plant's sludge storage tanks (SST) process, which consists of six sludge storage tanks (Emission Source SSTKS) at 125,000 cubic feet each. Digested sludge will be stored in these storage tanks. Eight small 55-gallons activated carbon drums (Emission Controls DRUM1, DRUM2, DRUM3, DRUM4, DRUM5, DRUM6, DRUM7 and DRUM8) are installed at these six sludge storage tanks for H₂S odor control purpose. These eight small activated carbon drums are connected to Emission Points STCD1, STCD2, STCD3, STCD4, STCD5, STCD6, STCD7 and STCD8; respectively.

4. The plant's sludge dewatering (SDW) process, in which activated carbon adsorption and wet chemical scrubber unit systems are in service at some locations for H₂S odor control.

Process SDW is the plant's sludge dewatering (SDW) process for sludge dewatering (Emission Source DEWAT) in the Dewatering Building. Under this process, sludge is further concentrated by centrifuges to remove water.

Wet scrubbers and activated carbon adsorbers are installed for H₂S odor control purpose. Three wet scrubber units (Emission Controls DWBV1, DWBV2 and DWBV3), connected to three stacks identified as Emission Points DEWB1, DEWB2 and DEWB3; respectively, are installed for the building ventilation. The wet scrubbers will use chemicals to achieve design H₂S removal efficiency at high H₂S concentration but could achieve adequate H₂S removal by using less or no chemical at normal low H₂S inlet concentration.

5. The plant's secondary sludge screening (SSB) process, which consists of sludge screens, degrittied sludge wet wells and pumps (Emission Source SSCRN). Odorous air from this building, as well as from the existing Grit and Storage Building, will be treated in a new activated



carbon adsorption system (Emission Controls SSBC1 & SSBC2) outside the building for H₂S and odor control purpose.

Building(s): DWB
OUTDOOR
SSCREENING
THICKOCB

Item 24.4:

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

Emission Unit: 4-WGBRN

Emission Unit Description:

Emission Unit 4-WGBRN includes the plant's waste digester gas burners to flare excess sludge digester gas (Process WGB). The existing waste digester gas burners building EWDGBB will be demolished to build a new waste digester gas burners building WDGBB. Three new burners (Emission Sources WGBR1, WGBR2, and WGBR3), connected to Emission Points FLAR1, FLAR2, and FLAR3, respectively, are to be constructed to replace the two existing burners (Emission Sources WGBRA and WBGRB), which are connected to Emission Points FLARA and FLARB, respectively.

Building(s): WDGBB

Item 24.5:

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

Emission Unit: 5-EMGEN

Emission Unit Description:

Emission Unit 5-EMGEN consists of the plant's back-up emergency power generators. The plant currently has two identical 1750 KW each Caterpillar Model 3500 emergency generators (Emission Sources EMGE1 & EMGE2) which fire ultra low sulfur diesel fuel (Process EMG), and their emissions will exit through a two separate stacks identified as Emission Points EMEG1 & EMEG2, respectively.

These emergency generators are located in the Emergency Generator Building. Each generator/engine will exhaust to its own separate individual stack (Emission Points EMEG1 & EMEG2). NYC DEP has an agreement with NYSDEC that these two emergency generators may also participate in the CDRP/Peak Load Management Program (grid emergency load shedding) when needed.

These two emergency generators (Emission Sources EMGE1 & EMGE2) are lean burn and have four strokes each. These two engine generators were previously installed prior to June 12, 2006. The Model year is 1993 and the displacement is <10 liters per cylinder (4.325).

Engine #1

Engine #2



Emission Source	EMGE1	EMGE2
Number of strokes 4	4	
Rich/lean burn burn	lean burn	lean
Model Year 1993	1993	
Number of cylinders	16	16
KW 1750	1750	
bhp 2,313.5 HP	2,313.5 HP	
MM Btu/hr Btu/hr	14.16 MM Btu/hr	14.16 MM
Capacity of IC engine L	69.2 L	69.2
Displacement per cylinder	4.325 cu. in.	4.325 cu. in.
Total Displacement per cylinder	69.2 L/16	69.2 L/16

The two 1,750 KW each exempt emergency generators will comply with the EPA standards that apply at the time of purchase.

The engines associated with these two generators will be subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary compression Ignition Internal Combustion Engines, and 40 CFR Part 63, subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These two emergency generators are exempt from permitting in accordance with 6 NYCRR 201-3.1(b) and 3.2(c)(6).

These two back-up diesel emergency generators burn ultra low sulfur fuel with maximum sulfur content of 15 ppm, in accordance with 40 CFR 60.4207(b) and 40 CFR 80.510(b).

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Each of the two emergency generators is 1,750 KW (2,313.5 HP). Each has a cylindrical displacement of less than 10 liters per cylinder, the number of cylinders for each engine is 16 (less than 69.2 liters for the 16 cylinders) for a total of 69.2 liters per engine.

Building(s): EMGB

Condition 25: Renewal deadlines for state facility permits
Effective between the dates of 10/17/2014 and 10/16/2024

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

Item 25.1:

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 26: Compliance Demonstration
Effective between the dates of 10/17/2014 and 10/16/2024

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

Item 26.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 26.2:

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.

The initial report is due 1/30/2015.

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

Condition 27: Visible Emissions Limited
Effective between the dates of 10/17/2014 and 10/16/2024

Applicable State Requirement:6 NYCRR 211.2

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Item 27.1:

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.

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

**Condition 28: Emission Point Definition By Emission Unit
Effective between the dates of 10/17/2014 and 10/16/2024**

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 28.1:

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

Emission Unit: 1-BLERS

Emission Point: AMBR1

Height (ft.): 46 Diameter (in.): 40
NYTMN (km.): 4501.957 NYTME (km.): 600.464 Building: ADMIN

Emission Point: DWBLR

Height (ft.): 66 Diameter (in.): 24
NYTMN (km.): 4501.889 NYTME (km.): 600.474 Building: DWB

Emission Point: MBBR1

Height (ft.): 54 Diameter (in.): 40
NYTMN (km.): 4502.031 NYTME (km.): 600.845 Building: MAIN-ADD

Item 28.2:

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

Emission Unit: 3-SLUDG

Emission Point: BPASS

Height (ft.): 65 Diameter (in.): 37
NYTMN (km.): 4501.953 NYTME (km.): 600.703 Building: THICKOCB

Emission Point: DEWB1

Height (ft.): 63 Diameter (in.): 48
NYTMN (km.): 4501.833 NYTME (km.): 600.483 Building: DWB

Emission Point: DEWB2

Height (ft.): 63 Diameter (in.): 48
NYTMN (km.): 4501.881 NYTME (km.): 600.496 Building: DWB

Emission Point: DEWB3

Height (ft.): 63 Diameter (in.): 48
NYTMN (km.): 4501.878 NYTME (km.): 600.508 Building: DWB

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Emission Point: DEWC1
Height (ft.): 54 Diameter (in.): 10
NYTMN (km.): 4501.878 NYTME (km.): 600.513 Building: DWB

Emission Point: DEWC2
Height (ft.): 54 Diameter (in.): 10
NYTMN (km.): 4501.878 NYTME (km.): 600.513 Building: DWB

Emission Point: DEWM1
Height (ft.): 71 Diameter (in.): 12
NYTMN (km.): 4501.953 NYTME (km.): 600.703 Building: DWB

Emission Point: DEWM2
Height (ft.): 71 Diameter (in.): 12
NYTMN (km.): 4501.953 NYTME (km.): 600.703 Building: DWB

Emission Point: GTOC1
Height (ft.): 52 Diameter (in.): 24
NYTMN (km.): 4501.857 NYTME (km.): 600.595 Building: THICKOCB

Emission Point: GTOC2
Height (ft.): 52 Diameter (in.): 24
NYTMN (km.): 4501.858 NYTME (km.): 600.594 Building: THICKOCB

Emission Point: SSOC1
Height (ft.): 61 Diameter (in.): 30
NYTMN (km.): 4502.172 NYTME (km.): 600.742 Building: SSCREENING

Emission Point: SSOC2
Height (ft.): 61 Diameter (in.): 30
NYTMN (km.): 4502.172 NYTME (km.): 600.743 Building: SSCREENING

Emission Point: STCD1
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4510.835 NYTME (km.): 600.617 Building: OUTDOOR

Emission Point: STCD2
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4510.835 NYTME (km.): 600.617 Building: OUTDOOR

Emission Point: STCD3
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4501.844 NYTME (km.): 600.617 Building: OUTDOOR

Emission Point: STCD4
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4501.844 NYTME (km.): 600.619 Building: OUTDOOR

Emission Point: STCD5
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4501.833 NYTME (km.): 600.626 Building: OUTDOOR

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Emission Point: STCD6
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4501.833 NYTME (km.): 600.626 Building: OUTDOOR

Emission Point: STCD7
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4501.833 NYTME (km.): 600.63 Building: OUTDOOR

Emission Point: STCD8
Height (ft.): 6 Diameter (in.): 8
NYTMN (km.): 4501.833 NYTME (km.): 600.63 Building: OUTDOOR

Item 28.3:

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

Emission Unit: 4-WGBRN

Emission Point: FLAR1
Height (ft.): 46 Diameter (in.): 72
NYTMN (km.): 4501.825 NYTME (km.): 600.582 Building: WDGBB

Emission Point: FLAR2
Height (ft.): 46 Diameter (in.): 72
NYTMN (km.): 4501.825 NYTME (km.): 600.582 Building: WDGBB

Emission Point: FLAR3
Height (ft.): 46 Diameter (in.): 72
NYTMN (km.): 4501.833 NYTME (km.): 600.584 Building: WDGBB

Item 28.4:

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

Emission Unit: 5-EMGEN

Emission Point: EMEG1
Height (ft.): 21 Diameter (in.): 16
NYTMN (km.): 4501.942 NYTME (km.): 600.829 Building: EMGB

Emission Point: EMEG2
Height (ft.): 21 Diameter (in.): 16
NYTMN (km.): 4501.942 NYTME (km.): 600.829 Building: EMGB

**Condition 29: Process Definition By Emission Unit
Effective between the dates of 10/17/2014 and 10/16/2024**

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 29.1:

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

Emission Unit: 1-BLERS



Process: ABB Source Classification Code: 1-03-007-01
Process Description:

Process ABB consists of (includes) the operation of the two new 150 bhp (6.28 MM Btu/hr) boilers package (Emission Sources ADBR1 & ADBR2) on gaseous fuels. These two boilers will be constructed under Phase II in the New Administration and Maintenance Building. Their emissions will exhaust through a stack identified as Emission Point AMBR1. The primary fuel for these boilers is natural gas with the plant's digester gas as a backup fuel when the digester gas is available.

The total throughput is an estimate according to design boilers operation to meet the plant-wide NOx emission limit of 24.9 tons per year.

Emission Source/Control: ADBR1 - Combustion
Design Capacity: 6.28 million Btu per hour

Emission Source/Control: ADBR2 - Combustion
Design Capacity: 6.28 million Btu per hour

Item 29.2:

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

Emission Unit: 1-BLERS
Process: DWB Source Classification Code: 1-03-005-01
Process Description:

Process DWB includes the operation of two existing 200 bhp (8.37 MM Btu/hr) Cleaver Brooks Boilers (Emission Sources DWBR1 & DWBR2, one standby boiler) on gaseous fuels in the Sludge Dewatering Building. These hot water boilers are piped to circulating pumps. The pumps distribute heating water to the various outside air heating and ventilating units, air conditioning units heating coils, terminal convectors, cabinet heaters and unit heaters. These two boilers (Emission Sources DWBR1 & DWBR2) exhaust their emissions through a stack identified as Emission Point DWBLR. The primary fuel for these boilers is natural gas with the plant's digester gas as a backup fuel when the digester gas is available.

The total throughput is an estimate according to design operation to meet the plant-wide NOx emission limit of 24.9 tons per year.

Emission Source/Control: DWBR1 - Combustion
Design Capacity: 8.37 million Btu per hour

Emission Source/Control: DWBR2 - Combustion
Design Capacity: 8.37 million Btu per hour



Item 29.3:

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

Emission Unit: 1-BLERS
Process: MBB Source Classification Code: 1-03-007-01
Process Description:

Process MBB consists of (includes) the operation of three existing 400 bhp (16.74 MM Btu/hr each) - (Emission sources BLER1, BLER2 & BLER3) using gaseous fuels in the Main Building. To replace these three existing 400 bhp boilers (16.74 MM Btu/hr each) - (Emission Sources BLER1, BLER2 & BLER3), three new 700 bhp package boilers (29.29 MM Btu/hr each) - (Emission Sources MBPA1, MBPA2 & MBPA3, one standby boiler) will be constructed under Phase II in the new boiler plant addition to the Main Building, identified as the Main Building Addition, to supply hot water. A hot water circulating system with separate supply and return piping that serve the plant buildings (except the Sludge Dewatering Building) and the primary sludge heat exchangers. Exhausts from the three new boilers MBPA1, MBPA2 and MBPA3 will be manifolded and connected to a new stack identified as Emission Point MBBR1. The three existing boilers (Emission Sources BLER1, BLER2 & BLER3) exhaust through a stack identified as Emission Point MBBLR. The primary fuel for these boilers is natural gas with the plant's digester gas as a backup fuel when the digester gas is available.

The total throughput is an estimate according to design boilers operation to meet the plant-wide NOx emission limit of 24.9 tons per year. This throughput estimate is based on the Potential to Emit (PTE) for operation of the three new 700 bhp (29.29 MM Btu/hr each) boilers, which is expected to be more conservative than operation of the three existing 400 bhp (16.74 MM Btu/hr) boilers.

Emission Source/Control: MBPA1 - Combustion
Design Capacity: 28.576 million Btu per hour

Emission Source/Control: MBPA2 - Combustion
Design Capacity: 28.576 million Btu per hour

Emission Source/Control: MBPA3 - Combustion
Design Capacity: 23.43 million Btu per hour

Item 29.4:

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:

Process ART is the plant's activated sludge aeration



complex, consisting of four aeration tanks (Emission Source AERTK). Each of these aeration tanks has four "passes". In this process, the effluent from the primary treatment section is mixed with activated sludge solids and air. These aeration tanks provide the detention time required for the activated sludge to absorb and adsorb the organic matter in the wastewater. Compressed air is discharged through the tanks to provide mixing and an aerobic environment. After a set mixing period, the mixture flows to the final twelve settling tanks (Emission Source FNSTK), where the solids are flocculated, settled and collected.

The total throughput is based on the design average dry weather flow of 100 million gallons per day.

Emission Source/Control: AERTK - Process
Design Capacity: 100,000,000 gallons per day

Item 29.5:

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:

Process CCT is the plant's chlorine contact disinfection process, consisting of two chlorine contact tanks (Emission Sources CCTTK) and required disinfection of the plant's effluent. The wastewater from the final settling tanks (Emission Source FNSTK) flows to the two chlorine contact tanks (Emission Source CCTNK) 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 thruput is based on the design average dry weather flow of 100 million gallons per day.

Emission Source/Control: CCTNK - Process
Design Capacity: 100,000,000 gallons per day

Item 29.6:

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

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

Process EPS is the plant's effluent water system, with pumps located in the Effluent Water Pump Station Building, EFFPS. The two existing effluent water pumps and the three existing dilution water pumps will be demolished and replaced with six new effluent water pumps (one water pump



as a standby) under Phase II.

The total hourly throughput is based on the design capacity of the new Effluent Water Pumps (Emission Source EFFPS), assuming five pumps are operating. However, the number of pumps in operation at any time varies, depending on the effluent water needs of the plant. Therefore, yearly throughput is difficult to predict.

Emission Source/Control: EFFPS - Process
Design Capacity: 100,000,000 gallons per day

Item 29.7:

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:

Process FST is the plant's final settling (FS) complex, consisting of twelve final settling tanks (Emission Source FNSTK). The purpose of this final settling process is two fold: (a) to settle out microorganisms and activated sludge solids waste generated during the aeration process (Process ART) to produce a clarified effluent, and (b) to collect the settled activated sludge for conveyance back to the four aeration tanks (Emission Source AERTK).

The total throughput is based on the design average dry weather flow of 100 million gallons per day.

Emission Source/Control: FNSTK - Process
Design Capacity: 100,000,000 gallons per day

Item 29.8:

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:

Process PHW is the plant headworks including the plant's four bar screens and four channels, located in the Main Sewage Pumping Station (Emission Source 0MSPS). The bar screen consists 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 to the main sewage pumps and other equipment.

The total throughput is based on the design average dry weather flow of 100 million gallons per day.



Emission Source/Control: 0MSPS - Process
Design Capacity: 100,000,000 gallons per day

Item 29.9:

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:

Process PST is the plant's primary settling tanks complex, consisting of five primary settling tanks (Emission Source PRITK) and the primary splitter box (Emission Source PRISB). This primary settling PST is a process in which the solid particles carried in raw sewage are removed by gravity under quiescent conditions in the five primary settling tanks (Emission Source PRITK). In addition, the primary settling tanks are used to separate and remove floating materials and scum. Solids and grit collected in the tanks are removed as a thin sludge by continuous pumping to cyclone digritters. Each primary settling tank is equipped with sludge collectors, dipping weirs, scum removal equipment, inlet sluice gates and overflow weirs. Equal flow distribution is achieved by a primary splitter box (Emission Source PRISB) upstream of these tanks. Prior to settling, the wastewater is screened to remove debris.

The total throughput is based on the design average dry weather flow of 100 million gallons per day.

Emission Source/Control: PRISB - Process
Design Capacity: 100,000,000 gallons per day

Emission Source/Control: PRITK - Process
Design Capacity: 100,000,000 gallons per day

Emission Source/Control: PSCRN - Process
Design Capacity: 100,000,000 gallons per day

Item 29.10:

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

Emission Unit: 3-SLUDG
Process: SDW Source Classification Code: 5-01-007-92

Emission Source/Control: DWBV1 - Control
Control Type: WET SCRUBBER

Emission Source/Control: DWBV2 - Control
Control Type: WET SCRUBBER

Emission Source/Control: DWBV3 - Control

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Control Type: WET SCRUBBER

Emission Source/Control: DWCV1 - Control

Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DWCV2 - Control

Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DEWAT - Process

Emission Source/Control: DWMA1 - Process

Emission Source/Control: DWMA2 - Process

Item 29.11:

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

Emission Unit: 3-SLUDG

Process: SGT

Source Classification Code: 5-01-007-71

Process Description:

Process SGT is the plant's sludge gravity thickening (SGT) process including five sludge gravity thickeners (Emission Source GTTKS): two at 28,512 cubic feet each and three at 48,743 cubic feet each. The primary and final settling tanks' sludge (approximately 99% water) is concentrated in these thickening tanks. The water is sent back to the head of the plant or aeration tanks for additional treatment. This process also includes the gravity belt thickener which will be constructed in Phase II.

Two wet chemical scrubbers (Emission Controls SCBR1 and SCBR2), one on standby, are installed for H₂S odor control purpose and exhaust through stacks GTOC1 and GTOC2; respectively. One is on standby. When the system's two wet scrubbers need to be taken out of service, the gravity thickeners tanks ventilation will exhaust through an existing bypassing stack BPASS.

The process throughput is based on sludge design capacity.

Emission Source/Control: SCBR1 - Control

Control Type: WET SCRUBBER

Emission Source/Control: SCBR2 - Control

Control Type: WET SCRUBBER

Emission Source/Control: GTTKS - Process

Design Capacity: 203,253 cubic feet

Item 29.12:



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

Emission Unit: 3-SLUDG
Process: SST Source Classification Code: 5-01-007-99

Emission Source/Control: DRUM1 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DRUM2 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DRUM3 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DRUM4 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DRUM5 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DRUM6 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DRUM7 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: DRUM8 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: SSTKS - Process
Design Capacity: 750,000 cubic feet

Item 29.13:

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

Emission Unit: 4-WGBRN
Process: WGB Source Classification Code: 5-01-007-89

Emission Source/Control: WGBR1 - Combustion
Design Capacity: 18.33 million Btu per hour

Emission Source/Control: WGBR2 - Combustion
Design Capacity: 18.33 million Btu per hour

Emission Source/Control: WGBR3 - Combustion
Design Capacity: 18.33 million Btu per hour

Item 29.14:

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

Emission Unit: 5-EMGEN
Process: EMG Source Classification Code: 2-04-003-02



Process Description:

Process EMG in Emission Unit 5-EMGEN consists of the plant's emergency power generators. The plant currently has two identical 1750 KW each Caterpillar Model 3500 emergency generators (Emission Sources EMGE1 & EMGE2) which fire ultra low sulfur diesel fuel (Process EMG), and their emissions will exit through a two separate stacks identified as Emission Points EMEG1 & EMEG2, respectively.

These emergency generators are located in the Emergency Generator Building. DEP has an agreement with NYSDEC that these emergency generators may also participate in the Peak Load Management Program (grid emergency load shedding) when needed.

Emission Source/Control: EMGE1 - Combustion

Design Capacity: 1,750 kilowatts

Emission Source/Control: EMGE2 - Combustion

Design Capacity: 1,750 kilowatts

