

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

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 2-6005-00125/00003
Effective Date: 04/19/2018 Expiration Date: 04/18/2023

Permit Issued To: NYC DEPT OF PARKS & RECREATION
830 5TH AVE
NEW YORK, NY 10065-7001

WILDLIFE CONSERVATION SOCIETY
2300 SOUTHERN BLVD
BRONX, NY 10460-1099

NYC DEPT OF CULTURAL AFFAIRS
330 W 42ND ST
NEW YORK, NY 10036

Contact: TOM FINKELPEARL
New York City Department of Cultural Affairs
31 CHAMBERS ST FL 2
NEW YORK, NY 10007
(212) 513-9300

Facility: BRONX ZOO
2300 SOUTHERN BLVD
BRONX, NY 10460

Contact: BRENDA BURBACH
WILDLIFE CONSERVATION SOCIETY
2300 SOUTHERN BLVD
BRONX, NY 10460
(718) 220-7153

Description:

This is Title V Permit renewal for Bronx Zoo.
The facility is a public zoo owned by the city and operated by Wildlife Conservation Society(WCS). The facility operates a cogeneration plant consists of four natural gas-fired (spark ignition) Endyn Clean burn engines: Two(2) 895 bhp, one(1) 1650 bhp and one(1) 2250 bhp; an incinerator/ farm incinerator with a design capacity charge rate of 300 pounds per hour to dispose of animal tissues, carcasses medical supplies; a microturbine plant at the Center for Global Conservation (CGC) building consists of eight microturbines each rated at 60KW; one small sterilization unit with an abator; numerous exempt sources, such as small boilers, emergency generators, and maintenance, laboratory and graphics operations.

Also, May of 2017 Engine 0416 had an unexpected catastrophic crank shaft failure. Bronx Zoo has replaced it with a crankshaft and block of identical make,model (Endyn 16GTLX), vintage, year and size. With this permit Bronx zoo requests to incorporate the replaced unit into the Title V Permit. Facility has performed a New Source Review analysis and demonstrated that the modification is minor since the project net emission increase of criteria contaminants NOx

and VOC are below significant net emission increase thresholds of 25 tpy for a major modification.

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

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

Authorized Signature: _____ Date: ____ / ____ / _____

Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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

LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

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

Facility Level

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

DEC GENERAL CONDITIONS

**** General Provisions ****

For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.

GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department

Applicable State Requirement: ECL 19-0305

Item 1.1:

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

Item 1.2:

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

Item 1.3:

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

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

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

Item 2.1:

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

Condition 3: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:

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

Item 3.2:

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

Item 3.3

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

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

Item 4.1:

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

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

****** Facility Level ******

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

Item 5.1:

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

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: NYC DEPT OF PARKS & RECREATION
830 5TH AVE
NEW YORK, NY 10065-7001

WILDLIFE CONSERVATION SOCIETY
2300 SOUTHERN BLVD
BRONX, NY 10460-1099

NYC DEPT OF CULTURAL AFFAIRS
330 W 42ND ST
NEW YORK, NY 10036

Facility: BRONX ZOO
2300 SOUTHERN BLVD
BRONX, NY 10460

Authorized Activity By Standard Industrial Classification Code:
0742 - VETERINARY SERV SPECIALTIES
4911 - ELECTRIC SERVICES
8422 - BOTANICAL AND ZOOLOGICAL GARDENS

Permit Effective Date: 04/19/2018

Permit Expiration Date: 04/18/2023

LIST OF CONDITIONS**FEDERALLY ENFORCEABLE CONDITIONS****Facility Level**

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6 NYCRR 201-6.4 (a) (7): Fees
- 3 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
- 4 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
- 5 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR 215.2: Open Fires - Prohibitions
- 10 6 NYCRR 200.7: Maintenance of Equipment
- 11 6 NYCRR 201-1.7: Recycling and Salvage
- 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
- 14 6 NYCRR 201-3.2 (a): Compliance Certification
- 15 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
- 16 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 17 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 18 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 19 6 NYCRR 202-1.1: Required Emissions Tests
- 20 40 CFR Part 68: Accidental release provisions.
- 21 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 22 6 NYCRR Subpart 201-6: Emission Unit Definition
- 23 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 24 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- 25 6 NYCRR 211.1: Air pollution prohibited
- 26 6 NYCRR 225-1.2 (h): Compliance Certification
- 27 6 NYCRR 230.2 (b): Gasoline Tanks \geq 250 Gallons Installed after 1/1/79 Required Stage 1 in NYCMA
- 28 40CFR 60, NSPS Subpart IIII: Applicability
- 29 40CFR 60, NSPS Subpart IIII: Compliance and Enforcement

Emission Unit Level

- 30 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 31 6 NYCRR Subpart 201-6: Process Definition By Emission Unit
- 32 6 NYCRR Subpart 201-7: Emission Unit Permissible Emissions

EU=C-00001

- *33 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 34 6 NYCRR 227-1.3 (a): Compliance Certification
- 35 6 NYCRR 227-2.4 (f) (1): Compliance Certification

EU=C-00001,Proc=003,ES=00416

- 36 6 NYCRR 231-11.1: Compliance Certification

EU=E-00001

- *37 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 38 6 NYCRR 227-1.3 (a): Compliance Certification

EU=G-00001,Proc=G10

- *39 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 40 6 NYCRR 227-2.4 (d): Compliance Certification

EU=S-00001

- 41 40CFR 63.10390, Subpart WWWW: Management practice standard
- 42 40CFR 63.10432, Subpart WWWW: Compliance Certification

EU=S-00001,EP=00009,Proc=00S,ES=STER2

- 43 6 NYCRR 212-1.6 (a): Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 44 ECL 19-0301: Contaminant List
- 45 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 46 6 NYCRR 231-1.5: Compliance Demonstration

Emission Unit Level

EU=1-00001

- 47 6 NYCRR 219-4.3: Compliance Demonstration
- 48 6 NYCRR 219-4.5 (a): Compliance Demonstration
- 49 6 NYCRR 219-4.5 (b): Compliance Demonstration
- 50 6 NYCRR 219-4.6: This section describes other wastes that can and can not be burned in a crematory.
- 51 6 NYCRR 219-4.10: Operator training and certification requirements.

EU=1-00001,Proc=00A,ES=00001

- 52 6 NYCRR 219-4.5 (b): Compliance Demonstration
- 53 6 NYCRR 219-4.5 (b): Compliance Demonstration

EU=S-00001,Proc=00S,ES=STER2

- 54 6 NYCRR 212-2.1: Compliance Demonstration

NOTE: * preceding the condition number indicates capping.

FEDERALLY ENFORCEABLE CONDITIONS****** Facility Level ********NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.

- Item A: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10 (b)**
The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.
- Item B: Timely Application for the Renewal of Title V Permits - 6 NYCRR 201-6.2 (a) (4)**
Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.
- Item C: Certification by a Responsible Official - 6 NYCRR 201-6.2 (d) (12)**
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- Item D: Requirement to Comply With All Conditions - 6 NYCRR 201-6.4 (a) (2)**
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- Item E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR 201-6.4 (a) (3)**
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4 (a) (5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item G: Property Rights - 6 NYCRR 201-6.4 (a) (6)

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

Item H: Severability - 6 NYCRR 201-6.4 (a) (9)

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item I: Permit Shield - 6 NYCRR 201-6.4 (g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;

iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item J: Reopening for Cause - 6 NYCRR 201-6.4 (i)

This Title V permit shall be reopened and revised under any of the following circumstances:

i. When additional applicable requirements under the act become applicable to a title V facility with a remaining permit term of three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the department pursuant to the provisions of section 201- 6.6 of this Subpart.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item K: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or

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

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

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

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS
SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.

**Condition 1: Acceptable Ambient Air Quality
Effective between the dates of 04/19/2018 and 04/18/2023**

Applicable Federal Requirement: 6 NYCRR 200.6

Item 1.1:

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.

**Condition 2: Fees
Effective between the dates of 04/19/2018 and 04/18/2023**

Applicable Federal Requirement: 6 NYCRR 201-6.4 (a) (7)

Item 2.1:

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

**Condition 3: Recordkeeping and Reporting of Compliance Monitoring
Effective between the dates of 04/19/2018 and 04/18/2023**

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

Item 3.1:

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii)The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.2 of Part 201.

**Condition 4: Records of Monitoring, Sampling, and Measurement
Effective between the dates of 04/19/2018 and 04/18/2023**

Applicable Federal Requirement:6 NYCRR 201-6.4 (c) (2)

Item 4.1:

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

**Condition 5: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023**

Applicable Federal Requirement:6 NYCRR 201-6.4 (c) (3) (ii)

Item 5.1:

The Compliance Certification activity will be performed for the Facility.

Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

- (1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
- (2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
- (3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.
- (4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill

Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.2(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.4(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 6: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

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

Item 6.1:

The Compliance Certification activity will be performed for the Facility.

Item 6.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
 - the identification of each term or condition of the permit that is the basis of the certification;
 - the compliance status;
 - whether compliance was continuous or intermittent;
 - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related record keeping and reporting requirements of this permit;
 - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
 - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All annual compliance certifications may be submitted

electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). The mailing addresses for the above referenced persons are:

Chief – Stationary Source Compliance Section
USEPA Region 2
Air Compliance Branch
290 Broadway
New York, NY 10007-1866

The address for the RAPCE is as follows:

Regional Air Pollution Control Engineer
Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101-5407

The address for the BQA is as follows:

NYSDEC
Bureau of Quality Assurance
625 Broadway
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2018.
Subsequent reports are due on the same day each year

Condition 7: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 202-2.1

Item 7.1:

The Compliance Certification activity will be performed for the Facility.

Item 7.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year. Statements are to be mailed to: New York State Department of Environmental Conservation, Division of Air

Resources, Bureau of Air Quality Planning, 625 Broadway,
Albany NY 12233-3251

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due by April 15th for previous calendar year

Condition 8: Recordkeeping requirements
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 202-2.5

Item 8.1:

(a) The following records shall be maintained for at least five years:

- (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

Condition 9: Open Fires - Prohibitions
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 215.2

Item 9.1:

Except as allowed by Title 6 NYCRR Section 215.3, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item 9.2

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a

religious ceremony.

(h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.

(i) Prescribed burns performed according to Part 194 of this Title.

(j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.

(k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.

(l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS
SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period.

[NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

Condition 10: Maintenance of Equipment
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 200.7

Item 10.1:

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.

Condition 11: Recycling and Salvage
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 11.1:

Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-1.8**Item 12.1:**

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.

Condition 13: Exempt Sources - Proof of Eligibility
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-3.2 (a)**Item 13.1:**

The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

Condition 14: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-3.2 (a)**Item 14.1:**

The Compliance Certification activity will be performed for the Facility.

Item 14.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

AS PROOF OF EXEMPT ELIGIBILITY FOR THE
EMERGENCY GENERATORS, THE FACILITY MUST
MAINTAIN MONTHLY RECORDS WHICH
DEMONSTRATE THAT EACH ENGINE IS OPERATED
LESS THAN 500 HOURS PER YEAR, ON A
12-MONTH ROLLING TOTAL BASIS.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 500.0 hours

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 15: Trivial Sources - Proof of Eligibility
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-3.3 (a)**Item 15.1:**

The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this

Subpart. The owner or operator of any such emission source or activity must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request.

Condition 16: Requirement to Provide Information
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (4)

Item 16.1:

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

Condition 17: Right to Inspect
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (8)

Item 17.1:

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

Condition 18: Off Permit Changes
Effective between the dates of 04/19/2018 and 04/18/2023

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

Item 18.1:

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made

without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.4 shall not apply to any change made pursuant to this paragraph.

Condition 19: Required Emissions Tests
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 202-1.1

Item 19.1:

For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time.

Condition 20: Accidental release provisions.
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:40 CFR Part 68

Item 20.1:

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

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

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

Condition 21: Recycling and Emissions Reduction
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:40CFR 82, Subpart F

Item 21.1:

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

The following conditions are subject to annual compliance certification requirements for Title V permits only.

Condition 22: Emission Unit Definition
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 22.1:

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

Emission Unit: 1-00001

Emission Unit Description:

This emissions unit (hereinafter the "farm incinerator") is a model CT-5 incinerator manufactured by Silent Glow Corporation. The farm incinerator was installed at the facility in or around 1966 and is subject to 6 NYCRR PART 219-4. The farm incinerator has a design capacity charge rate of 300 pounds per hour and a thruput capacity of 2400 pounds per day based on an eight-hour operating day.

The design is similar to that of a "heated hearth" as the combustion gases pass under the primary section and re-enter the burner chamber before they are discharged through the stack. There are two temperature gauges, one is located in the primary chamber and one located in the secondary chamber. A continous strip chart temperature recorder, Omega Engineering, Model CT7100 was installed on January 3, 2008.

Building(s): FARM

Item 22.2:

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

Emission Unit: C-00001

Emission Unit Description:

This emissions unit (thereinafter the "cogen plant") presently consists of four natural gas-fired (spark ignition) Endyn Clean burn engines: Two(2) 895 bhp and one(1) 1650 bhp and one(1) 2250 bhp.

In May of 2017 Engine 0416(2250 bhp) had an unexpected catastrophic crank shaft failure. Facility replaced the engine block on engine 0416 with a block of the same make, model (Endyn 16GTLX), vintage and size(2200 BHP,

originally constructed in 1985/1986.
All four (4) engines are in compliance with the NO_x RACT limit of 1.5 gr/bhp-hr for this type of engine.

All these engines were manufactured prior to June 12, 2006, so these units are not subject to Subpart JJJJ.

Building(s): JWC

Item 22.3:

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

Emission Unit: E-00001

Emission Unit Description:

This emission unit has six(6) emergency generators (each with 500 hours of operation limit per year). The combined potential NO_x emissions from six generators (0EMG1-0EMG6) are 5.6 tons per year.

Item 22.4:

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

Emission Unit: G-00001

Emission Unit Description:

The emission unit G-00001 consists of a total of eight(8) microturbines each rated at 60KW and a chiller/heating unit as supplied by UTC Power. All of the microturbine are Capstone Model C60. Six(6) of the microturbines are incorporated into the PureComfort Model 360M unit, and are directly connected to the chiller/heater to generate electricity as well as cooling and/or heating. Waste gases from these microturbines drive the chiller/heater at any operating level between full exhaust and complete diversion to the chiller/heater. The remaining two (2) Capstone Model C60 microturbine units are stand-alone and independent of the PureComfort Model 360M, and will provide peak electrical generation.

Building(s): CGC

Item 22.5:

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

Emission Unit: S-00001

Emission Unit Description:

This emission unit is comprised of one ethylene oxide (EtO) sterilization unit manufactured by Andersen Products Inc. This unit uses up to ten 11-gram cartridge charges of EtO, maximum usage of 110 grams total, for each batch cycle, which lasts 16 hours, and sterilizes instruments used to provide medical care to animals in the zoo which qualifies this unit as subject to Subpart WWWW per the definition of "hospital".

The EtO unit is equipped with an abator AN5200 which can abate 1800 11 gram EtO gas cartridges (41.47 pounds of EtO), extracting over 98% ethylene oxide in the exhaust stream.

The total potential EtO emissions from this unit are limited to 25 lbs per year.

Building(s): AHC

Condition 23: Progress Reports Due Semiannually
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 201-6.4 (d) (4)

Item 23.1:

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

Condition 24: Facility Permissible Emissions
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 24.1:

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: ONY210-00-0

PTE: 286,500 pounds per year

Name: OXIDES OF NITROGEN

Condition 25: Air pollution prohibited
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 211.1

Item 25.1:

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 26: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

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

Item 26.1:

The Compliance Certification activity will be performed for the Facility.

Item 26.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

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 27: Gasoline Tanks >= 250 Gallons Installed after 1/1/79
Required Stage 1 in NYCMA
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 230.2 (b)

Item 27.1:

Gasoline tanks greater than or equal to 250 gallons and installed after January 1, 1979 are required to install Stage I vapor collection systems in NYCMA.

Condition 28: Applicability
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:40CFR 60, NSPS Subpart IIII

Item 28.1:

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

Condition 29: Compliance and Enforcement

Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:40CFR 60, NSPS Subpart III

Item 29.1:

The Department has not accepted delegation of 40 CFR Part 60 Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Any questions concerning compliance and/or enforcement of this regulation should be referred to USEPA Region 2, 290 Broadway, 21st Floor, New York, NY 10007-1866; (212) 637-4080. Should the Department decide to accept delegation of 40 CFR Part 60 Subpart III during the term of this permit, enforcement of this regulation will revert to the Department as of the effective date of delegation.

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

Condition 30: Emission Point Definition By Emission Unit

Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 30.1:

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

Emission Unit: 1-00001

Emission Point: 00001

Height (ft.): 30 Length (in.): 20 Width (in.): 20
NYTMN (km.): 4522.759 NYTME (km.): 594.532 Building: FARM

Item 30.2:

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

Emission Unit: C-00001

Emission Point: 00108

Height (ft.): 42 Diameter (in.): 14
NYTMN (km.): 4523. NYTME (km.): 594.2 Building: JWC

Emission Point: 00208

Height (ft.): 42 Diameter (in.): 14
NYTMN (km.): 4523. NYTME (km.): 594.2 Building: JWC

Emission Point: 00312

Height (ft.): 42 Diameter (in.): 18

NYTMN (km.): 4523. NYTME (km.): 594.2 Building: JWC
 Emission Point: 00416
 Height (ft.): 42 Diameter (in.): 24
 NYTMN (km.): 4523. NYTME (km.): 594.2 Building: JWC

Item 30.3:

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

Emission Unit: G-00001
 Emission Point: 00010
 Height (ft.): 16 Diameter (in.): 20
 NYTMN (km.): 4522.759 NYTME (km.): 594.532 Building: CGC
 Emission Point: 00011
 Height (ft.): 16 Diameter (in.): 20
 NYTMN (km.): 4522.759 NYTME (km.): 594.532 Building: CGC
 Emission Point: 00012
 Height (ft.): 8 Diameter (in.): 8
 NYTMN (km.): 4522.759 NYTME (km.): 594.532 Building: CGC
 Emission Point: 00013
 Height (ft.): 8 Diameter (in.): 8
 NYTMN (km.): 4522.759 NYTME (km.): 594.532 Building: CGC

Item 30.4:

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

Emission Unit: S-00001
 Emission Point: 00009
 Height (ft.): 15 Diameter (in.): 3
 NYTMN (km.): 4523.014 NYTME (km.): 594.335 Building: AHC

**Condition 31: Process Definition By Emission Unit
 Effective between the dates of 04/19/2018 and 04/18/2023**

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 31.1:

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

Emission Unit: 1-00001
 Process: 00A Source Classification Code: 5-02-001-02

Process Description:

The farm incinerator is used to dispose of animal carcasses and animal tissues, and a small amount of clear plastic bags, latex gloves and paper used during necropsy procedures (less than 5% by weight). The farm incinerator is fired and used on an "as needed basis" (which at present is approximately three times per month) and runs for approximately five hours per operation. At all other times, the farm incinerator is in shut-down mode and is

not running or fired. The actual hours/days of operation and quantity of material incinerated at the farm incinerator typically are much less than its design capacity and the limitations imposed under the NYCDEP certificate of operation.

Emission Source/Control: 00001 - Incinerator
Design Capacity: 2,400 pounds per day
Waste Feed Method: MANUAL DIRECT FEED
Waste Type: Crematory Waste (Including Animal Body parts and associated animal bedding only)

Item 31.2:

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

Emission Unit: C-00001
Process: 003 Source Classification Code: 2-03-002-04
Process Description:

The cogen plant will consist of four (4) 100% natural gas-fired (spark ignition) endyn cleanburn engines - two (2) 8 cylinder engines, one 12 cylinder engine and one 16 cylinder engine and associated waste heat boilers for the production of electricity and hot water for the Bronx Zoo.

Emission Source/Control: 00108 - Combustion
Design Capacity: 895 brake horsepower

Emission Source/Control: 00208 - Combustion
Design Capacity: 895 brake horsepower

Emission Source/Control: 00312 - Combustion
Design Capacity: 1,650 brake horsepower

Emission Source/Control: 00416 - Combustion
Design Capacity: 2,200 brake horsepower

Item 31.3:

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

Emission Unit: E-00001
Process: 0EG Source Classification Code: 2-03-001-07
Process Description: Emergency generators on distillate oil.

Emission Source/Control: 0EMG1 - Combustion

Emission Source/Control: 0EMG2 - Combustion

Emission Source/Control: 0EMG3 - Combustion

Emission Source/Control: 0EMG4 - Combustion

Emission Source/Control: 0EMG5 - Combustion

Emission Source/Control: 0EMG6 - Combustion
Design Capacity: 70 kilowatts

Item 31.4:

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

Emission Unit: G-00001
Process: G10 Source Classification Code: 2-03-002-03

Process Description:
Natural gas fueled 8 microturbines to provide heating,
cooling, electricity for the CGC building.

Emission Source/Control: 00010 - Combustion
Design Capacity: 60 kilowatts

Emission Source/Control: 00020 - Combustion
Design Capacity: 60 kilowatts

Emission Source/Control: 00021 - Combustion
Design Capacity: 60 kilowatts

Emission Source/Control: 00022 - Combustion
Design Capacity: 60 kilowatts

Emission Source/Control: 00023 - Combustion
Design Capacity: 60 kilowatts

Emission Source/Control: 00024 - Combustion
Design Capacity: 60 kilowatts

Emission Source/Control: 00025 - Combustion
Design Capacity: 60 kilowatts

Emission Source/Control: 00026 - Combustion
Design Capacity: 60 kilowatts

Item 31.5:

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

Emission Unit: S-00001
Process: 00S Source Classification Code: 3-15-020-01

Process Description:
This process represents the use of ethylene oxide (EtO)
in the sterilization unit.

Emission Source/Control: STER2 - Process
Design Capacity: 110 grams per day

**Condition 32: Emission Unit Permissible Emissions
Effective between the dates of 04/19/2018 and 04/18/2023**

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 32.1:

The sum of emissions from all regulated processes specified in this permit for the emission unit

cited

shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: G-00001

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

PTE(s): 16,663 pounds per year

Condition 33: Capping Monitoring Condition
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 33.1:

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 231-2

Item 33.2:

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

Item 33.3:

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 33.4:

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 33.5:

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 33.6:

The Compliance Certification activity will be performed for:

Emission Unit: C-00001

Regulated Contaminant(s):

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

Item 33.7:

Process: 003

Emission Unit: C-00001

Emission Point: 00416

Process: 003

Item 34.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

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

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

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

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

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

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: EPA Method 9

Monitoring Frequency: ANNUALLY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

Condition 35: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 227-2.4 (f) (1)

Item 35.1:

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

Emission Unit: C-00001
Process: 003 Emission Source: 00108

Emission Unit: C-00001
Process: 003 Emission Source: 00208

Emission Unit: C-00001
Process: 003 Emission Source: 00312

Emission Unit: C-00001
Process: 003 Emission Source: 00416

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

Item 35.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition applies to stationary internal combustion engines that have a maximum mechanical output rating equal to or greater than 200 brake horsepower in a severe ozone nonattainment area or 400 brake horsepower outside a severe ozone nonattainment area and are fired by natural gas. The owner or operator is required to submit a compliance testing protocol to the department for approval at least 30 days prior to testing. The owner or operator will maintain all records on-site for a minimum of five years.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 1.5 grams per brake horsepower-hour

Reference Test Method: 40 CFR 60 Appendix A - Method 7, 7E, or 19

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

Condition 36: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 231-11.1**Item 36.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001

Process: 003

Emission Source: 00416

Regulated Contaminant(s):

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

Item 36.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

Total annual NO_x emissions of engine 00416 is limited to 31.9 tons per year due to the fact that facility has netted out Part 231 applicability. Bronx Zoo shall keep on site records showing compliance with this permit limit.

Engine 00416's crank shaft and block were replaced with an identical model and size in June 2017 as a result of catastrophic crank shaft failure of engine. Facility has performed a New Source Review analysis for this replacement as shown below demonstrating that the modification is minor since the net emission increase for the criteria contaminant NO_x due to this modification is below the significant net emission increase threshold of 25 tons per year.

NO_x net emission increase (NEI) = 16.2 tpy
 NEI = 16.2 tpy = Project emission Potential with replaced block, 16 (31.9- 15.9)tpy + 0.2tpy (contemporaneous creditable emission increases) + 0 (ERCs during contemporaneous period), where 31.9 tpy is the Engine 00416 NO_x PTE with the replaced block, 15.9 tpy is the baseline actual emission of Engine 00416, and 0.2 tpy is NO_x PTE of 70 KW emergency generator (Emission Source OEMG6 in Emission Unit 0000E) installed during the contemporaneous period.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 31.90 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL TOTAL ROLLED MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

Condition 37: Capping Monitoring Condition
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 37.1:

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 231-6.1

Item 37.2:

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

Item 37.3:

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 37.4:

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 37.5:

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 37.6:

The Compliance Certification activity will be performed for:

Emission Unit: E-00001

Regulated Contaminant(s):

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

Item 37.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

NOx emissions from six emergency generators listed in

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

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

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: EPA Method 9

Monitoring Frequency: ANNUALLY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

Condition 39: Capping Monitoring Condition
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 39.1:

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 231-6.1

Item 39.2:

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

Item 39.3:

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 39.4:

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 39.5:

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 39.6:

The Compliance Certification activity will be performed for:

Emission Unit: G-00001

Process: G10

Regulated Contaminant(s):

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

Item 39.7:

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Nitrogen Oxides emission of eight (8) microturbines listed in this emission unit are limited to 8.3 tons per year. Facility should calculate annual total NOx emissions using AP 42 emission factors, fuel usage as shown below:

Gas usage in MMScf X 300/pounds/MMscf/2000 lbs/ton

Ref:

[https](https://www3.epa.gov/ttnchie1/ap42/ch03/bgdocs/b03s01.pdf)

[://www](https://www3.epa.gov/ttnchie1/ap42/ch03/bgdocs/b03s01.pdf)

[w3.epa.gov/ttnchie1/ap42/ch03/bgdocs/b03s01.pdf](https://www3.epa.gov/ttnchie1/ap42/ch03/bgdocs/b03s01.pdf)

Table 3.4-1. NOx Emission factor for uncontrolled unit - 0.295lbs/MMBtu (300lb/MMscf)

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

Condition 40: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement: 6 NYCRR 227-2.4 (d)

Item 40.1:

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

Emission Unit: G-00001
 Process: G10 Emission Source: 00010

Emission Unit: G-00001
 Process: G10 Emission Source: 00020

Emission Unit: G-00001
 Process: G10 Emission Source: 00021

Emission Unit: G-00001
 Process: G10 Emission Source: 00022

Emission Unit: G-00001
 Process: G10 Emission Source: 00023

Emission Unit: G-00001
 Process: G10 Emission Source: 00024

Emission Unit: G-00001
 Process: G10 Emission Source: 00025

Emission Unit: G-00001
 Process: G10 Emission Source: 00026

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

Item 40.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a small boiler, small combustion turbine, or small internal combustion engine must perform an annual tune-up of their equipment. This tune-up should be performed in accordance with the requirements of the DAR-5 guidance document. Records of each tune-up must be kept on-site for a minimum of five years.

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

Condition 41: Management practice standard
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:40CFR 63.10390, Subpart WWWW

Item 41.1:

This Condition applies to Emission Unit: S-00001

Item 41.2:

The facility must sterilize full loads of items having a common aeration time, except under medically necessary circumstances, as that term is defined in §63.10448.

Condition 42: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:40CFR 63.10432, Subpart WWWW

Item 42.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001

Regulated Contaminant(s):
CAS No: 000075-21-8 ETHYLENE OXIDE

Item 42.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

- The facility must keep the following records:
 - (a) A copy of the Initial Notification of Compliance Status that you submitted to comply with this subpart.
 - (b) Records required by §63.10420 for each sterilization unit not equipped with an air pollution control device.

The facility records must be in a form suitable and readily available for expeditious review, and the facility must keep each record for 5 years following the date of each record. Records must be kept onsite for at least 2 years after the date of each record and may be kept offsite for the remaining 3 years.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

Condition 43: Compliance Certification
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable Federal Requirement:6 NYCRR 212-1.6 (a)

Item 43.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001 Emission Point: 00009

Process: 00S

Emission Source: STER2

Item 43.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

STATE ONLY ENFORCEABLE CONDITIONS****** Facility Level ********NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

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

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

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

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

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

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

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

Item B: 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 applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.

Condition 44: Contaminant List
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:ECL 19-0301

Item 44.1:

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

CAS No: 000075-21-8
Name: ETHYLENE OXIDE

CAS No: 0NY075-00-0
Name: PARTICULATES

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

Condition 45: Malfunctions and start-up/shutdown activities
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 201-1.4

Item 45.1:

(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 46: Compliance Demonstration
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 231-1.5

Item 46.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

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

Item 46.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

In accordance with 231-1.5, the applicant has permanently secured Emission reduction Credit (ERC) for its Oxides of Nitrogen (NOx) emissions of 171.2 tons per year (tpy) from the following sources.

1. Keyspan (DEC ID:1-2822-00481, Emission Unit ID: U00018/U00019) - 78.36 tpy of NOx

2. Oceanside (DEC ID:1-2820-02479, Emission Unit ID: ET003/ET007/ET008) - 15.86 tpy of NOx

3. Old Bethpage Landfill Gas Recovery (DEC ID:1-2824-00077, Emission Unit ID: 27/29) - 15.06 tpy of

NOx

4. Smithtown (DEC ID:1-4734-00169, Emission Unit ID: 22) - 12.82 tpy of NOx

5. Ramapo (DEC ID:2-6301-00006, Emission Unit ID: from ConEd, Astoria) - 49.10 tpy of NOx

All 171.2 tpy of NOx ERCs from these sources have been obtained and applied to offset the project emission potential associated with the construction of engine 4 on or about 1995 and Maximum Annual Potential (MAP) of 131.2 tpy of NOx has been established. The facility has to maintain the credit and MAP at all the times. The Department has accepted this in full satisfaction of the requirement to obtain offset to account for the construction of engine 4.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

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

Condition 47: Compliance Demonstration
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 219-4.3

Item 47.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 47.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

No person may cause or allow emissions of particulates into the outdoor atmosphere from any emission source located in a crematory facility in excess of 0.08 grains per dry standard cubic foot of flue gas, corrected to seven percent oxygen.

A stack test shall be performed to demonstrate compliance with this limit, upon request from the Department, using a Department approved test protocol.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.08 grains per dry standard cubic foot (corrected to 7% O₂)

Reference Test Method: EPA Reference Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

Condition 48: Compliance Demonstration
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 219-4.5 (a)

Item 48.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 48.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

No person may cause or allow emissions to the outdoor atmosphere having a six-minute average opacity of 10 percent or greater from any emission source subject to these requirements. A Method 9 test shall be performed upon request by the Department

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

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

Condition 49: Compliance Demonstration
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 219-4.5 (b)

Item 49.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-00001

Item 49.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The incinerator ramp-up time for initial start-up to full "steady state" operation shall be 2 hours as determined during the approved April 2008 stack test.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).

Condition 50: This section describes other wastes that can and can not be burned in a crematory.

Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 219-4.6

Item 50.1:

This Condition applies to Emission Unit: 1-00001

Item 50.2:

(a) Municipal solid waste may not be burned in a crematory.

(b) Infectious waste (other than pathological waste and animal bedding) in excess of five percent of the total permitted hourly charging rate may not be burned in a crematory.

(c) Radioactive waste may not be burned in a crematory unless that crematory is exempt from or has been issued a permit pursuant to Part 380 of this Title.

(d) Hazardous waste may not be burned in a crematory unless that crematory is exempt from or has been issued a permit pursuant to Part 373 of this Title.

Condition 51: Operator training and certification requirements.

Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 219-4.10

Item 51.1:

This Condition applies to Emission Unit: 1-00001

Item 51.2:

(a) This facility may not operate except under the onsite direction of a person possessing an appropriate incinerator operator certification issued by the commissioner.

(b) Persons operating this facility must be certified in writing by the holder of an incinerator operator certification, relative to:

(1) proper operation and maintenance of equipment at that facility; and

(2) knowledge of environmental permit conditions and the impact of plant operation on emissions for that facility.

Condition 52: Compliance Demonstration
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 219-4.5 (b)

Item 52.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-00001

Process: 00A

Emission Source: 00001

Item 52.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

No person may operate a crematory unless the primary chamber temperature is maintained at 1400 degrees Fahrenheit at all times waste is being burned.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1400 degrees Fahrenheit

Monitoring Frequency: CONTINUOUS

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 53: Compliance Demonstration
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 219-4.5 (b)

Item 53.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-00001

Process: 00A

Emission Source: 00001

Item 53.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

No person may operate a crematory unless the secondary

chamber temperature is maintained at 1800 degrees Fahrenheit at all times waste is being burned.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1800 degrees Fahrenheit

Monitoring Frequency: CONTINUOUS

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 54: Compliance Demonstration
Effective between the dates of 04/19/2018 and 04/18/2023

Applicable State Requirement:6 NYCRR 212-2.1

Item 54.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: S-00001

Process: 00S

Emission Source: STER2

Regulated Contaminant(s):

CAS No: 000075-21-8 ETHYLENE OXIDE

Item 54.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

In addition to the requirements found in 40 CFR 63 WWWWW, the Ethylene Oxide(EtO) emissions from Emission unit S00001 are limited to 25 pounds per year.

EtO Gas abator, and the extractor blower must be operational while sterilization is in use. EtO sterilizer and EtO abator shall be operated according to manufacturer's recommendations. The owner or operator must change out the abator resin after 20 lbs of ethylene oxide throughput (825, 11gram cartridge) or every five years, whichever comes first.

Facility must demonstrate that the annual (12 month rolling total) EtO gas emissions from emission unit S-00001 does not exceed 25 pounds per year, which is calculated using the manufacturer's specified abator efficiency of 98%.

The owner or operator must maintain a records of

1. Daily operating records of sterilizer and abator,
2. Number of EtO Gas cartridges used per use,
3. Calculate monthly and yearly (12 month rolling) total of EtO Gas emitted after abator,
4. Number of cartridges used and pounds of EtO that have been exhausted into the abator since the date of the resin

replacement,

5. Maintenance/service records for sterilizer and abator,
6. Most recent manufacturer's certification of abator efficiency,
7. Abator resin change out date.

All records shall be maintained on site for a minimum of five years and must be available to the Department upon request.

Parameter Monitored: ETHYLENE OXIDE

Upper Permit Limit: 25 pounds per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2018.

Subsequent reports are due every 6 calendar month(s).