

TABLE OF CONTENTS: APPENDICES

APPENDIX A: Documents	2
Document 5.2-1 Air Title V Facility Permit	3
Document 5.4-1 8 Step Floodplain Decision Making Notice	46
Document 5.4-2 Hydrology and Hydraulics.....	52
Document 5.7-1 US Department of the Interior Correspondence.....	62
APPENDIX B: Figures	69
Figure 1-1 Project Location Map	70
Figure 1-2 Existing Campus Layout.....	71
Figure 4-1 Proposed Alternative.....	72
Figure 5.1-1 SSURGO Soils	73
Figure 5.3-1 NWI Wetlands	74
Figure 5.3-2 NYSDEC Tidal Wetlands	75
Figure 5.4-1 FEMA Preliminary Flood Hazard Areas	76
Figure 5.5-1 NYC Coastal Zone Boundary	77
Figure 5.6-1 Photograph Key.....	78
Figure 5.6-2 Natural Resources Photographs.....	79
Figure 5.10-1 Community of Concern –Environmental Justice Study Area.....	81
Figure 5.11-1 Existing Land Use	82
Figure 5.13-1 Transportation	83
APPENDIX C: Tables	84
Table 5.2-1 National Ambient Air Quality Standards (NAAQS).....	85
Table 5.2-2 Representative Monitored Ambient Air Quality Data	86
Table 5.6-1 Vegetation Identified within the Project Site	87
Table 5.7-1 New York State Breeding Bird Atlas (2000-2005) Results for Block 5849C.....	88
APPENDIX D: Correspondence.....	89
Correspondence 5.7-1 – NYSHPO Consultation	90

Appendix A Documents

Appendix A
Document 5.2-1
Air Title V Facility Permit

PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 2-6107-00012/00011
Effective Date: 01/06/2014 Expiration Date: 01/05/2019

Permit Issued To: NYC HEALTH & HOSPITALS CORP
125 WORTH STREET
NEW YORK, NY 10013-4006

Contact: DANIEL COLLINS
NYC HEALTH & HOSPITALS CORPORATION
125 WORTH ST
NEW YORK, NY 10013
(718) 616-4142

Facility: NYC-HH - CONEY ISLAND HOSPITAL
2601 OCEAN PKWY @ AVE Z
BROOKLYN, NY 11235

Description:
Coney Island Hospital currently has a Title V permit to operate 2x23.4 mmBtu.hr union iron works boiler and 1x31.6 mmBtu/hr kepler cp boiler, both firing No. 6 fuel oil, and 2 exempt emergency generators.

The hospital is removing these 3 boilers and installing 3 new cleaver brook boilers, each rated 20.412 mmBtu/hr.

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

Permit Administrator: JOHN F CRYAN
NYSDEC
47-40 21ST ST
LONG ISLAND CITY, NY 11101-5407

Authorized Signature: _____ Date: _/___/_____

Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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

LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- 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 expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:

Permits are transferrable with the approval of the department unless specifically prohibited by

the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

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

Item 4.1:

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

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

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

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

Item 5.1:

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

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: NYC HEALTH & HOSPITALS CORP
125 WORTH STREET
NEW YORK, NY 10013-4006

Facility: NYC-HH - CONEY ISLAND HOSPITAL
2601 OCEAN PKWY @ AVE Z
BROOKLYN, NY 11235

Authorized Activity By Standard Industrial Classification Code:
8062 - GENERAL MEDICAL & SURGICAL HOSPITALS

Permit Effective Date: 01/06/2014

Permit Expiration Date: 01/05/2019

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 202-2.1: Compliance Certification
- 9 6 NYCRR 202-2.5: Recordkeeping requirements
- 10 6 NYCRR 215.2: Open Fires - Prohibitions
- 11 6 NYCRR 200.7: Maintenance of Equipment
- 12 6 NYCRR 201-1.7: Recycling and Salvage
- 13 6 NYCRR 201-1.7: Recycling and Salvage
- 14 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 15 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
- 16 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
- 17 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 18 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 19 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 20 6 NYCRR 202-1.1: Required Emissions Tests
- 21 40 CFR Part 68: Accidental release provisions.
- 22 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 23 6 NYCRR Subpart 201-6: Emission Unit Definition
- 24 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 25 6 NYCRR 202-1.2: Notification
- 26 6 NYCRR 202-1.3: Acceptable procedures
- 27 6 NYCRR 202-1.3: Acceptable procedures - Stack test report submittal
- 28 6 NYCRR 202-1.3: Alternate test methods
- 29 6 NYCRR 211.1: Air pollution prohibited
- 30 6 NYCRR 225.1 (a) (3): Compliance Certification
- 31 6 NYCRR 225.1 (a) (3): Compliance Certification
- 32 6 NYCRR 227-1.6 (b): Corrective action.
- 33 6 NYCRR 227-1.6 (c): Corrective action.
- 34 6 NYCRR 227-1.6 (d): Corrective action.

Emission Unit Level

- 35 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 36 6 NYCRR Subpart 201-6: Process Definition By Emission Unit
- 37 6 NYCRR 227-1.3: Compliance Certification

EU=U-00001

- 38 6 NYCRR 227-1.3 (a): Compliance Certification
- 39 6 NYCRR 227-2.4 (d): Compliance Certification
- 40 6 NYCRR 227.2 (b) (1): Compliance Certification

EU=U-C0001

- 41 6 NYCRR 227-1.3: Compliance Certification
- 42 6 NYCRR 227-1.3 (a): Compliance Certification
- 43 6 NYCRR 227.2 (b) (1): Compliance Certification

EU=U-C0002

- 44 6 NYCRR 227-1.3: Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 45 ECL 19-0301: Contaminant List
- 46 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 47 6 NYCRR 211.2: Visible Emissions Limited

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: Emergency Defense - 6 NYCRR 201-1.5

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

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

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

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

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

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

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

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

Item B: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10 (b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR 201-6.2 (a) (4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item D: Certification by a Responsible Official - 6 NYCRR 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 E: 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 F: 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 G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4 (a) (5)

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

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

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

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

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

Item J: Permit Shield - 6 NYCRR 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 K: 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. If additional applicable requirements under the Act become applicable where this permit's remaining term is

three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

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

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

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

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

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

Item L:

Permit Exclusion - ECL 19-0305

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

(NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

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

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 01/06/2014 and 01/05/2019**

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 01/06/2014 and 01/05/2019**

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 01/06/2014 and 01/05/2019**

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 01/06/2014 and 01/05/2019**

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 01/06/2014 and 01/05/2019**

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 shall be submitted to the Administrator (or his or her representative) as well as two copies 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). 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 7/30/2014.

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

Condition 6: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

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 compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies 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). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:

USEPA Region 2
Air Compliance Branch
290 Broadway
New York, NY 10007-1866

The address for the RAPCE is as follows:

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 7/30/2014.
Subsequent reports are due on the same day each year

Condition 7: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

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: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 202-2.1

Item 8.1:

The Compliance Certification activity will be performed for the Facility.

Item 8.2:

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.

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due by April 15th for previous calendar year

Condition 9: Recordkeeping requirements
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 202-2.5

Item 9.1:

(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 10: Open Fires - Prohibitions
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 215.2

Item 10.1:

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 10.2

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 11: Maintenance of Equipment
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 200.7

Item 11.1:

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 12: Recycling and Salvage
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 12.1:

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 13: Recycling and Salvage
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 13.1:

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 14: Prohibition of Reintroduction of Collected Contaminants to the air
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 201-1.8

Item 14.1:

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 15: Exempt Sources - Proof of Eligibility
Effective between the dates of 01/06/2014 and 01/05/2019

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

Item 15.1:

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 16: Trivial Sources - Proof of Eligibility
Effective between the dates of 01/06/2014 and 01/05/2019

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

Item 16.1:

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 17: Requirement to Provide Information
Effective between the dates of 01/06/2014 and 01/05/2019

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

Item 17.1:

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 18: Right to Inspect
Effective between the dates of 01/06/2014 and 01/05/2019

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

Item 18.1:

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 19: Off Permit Changes
Effective between the dates of 01/06/2014 and 01/05/2019

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

Item 19.1:

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 20: Required Emissions Tests
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 202-1.1

Item 20.1:

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 21: Accidental release provisions.
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:40 CFR Part 68

Item 21.1:

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 22: Recycling and Emissions Reduction
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:40CFR 82, Subpart F

Item 22.1:

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 23: Emission Unit Definition
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 23.1:

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

Emission Unit: U-00001

Emission Unit Description:

This unit consists of 3 cleaver brooks boilers (3x20.412 mmBtu/hr) firing natural gas and #2 fuel oil. The flue gases from these boilers exit through a common stack.

Building(s): 1

Item 23.2:

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

Emission Unit: U-C0001

Emission Unit Description:

Emission Unit U-C0001 consists of one Keeler CP boiler with two (2) burners, each with a maximum hourly heat input of 15.9 million Btu/hr, Total 31.8 million Btu/hr heat input, (Emission Sources S0003), and two (2) Union

Iron Works boilers, with a maximum hourly heat input of 23.4 million Btu/hr (Emission Source S0001 and S0002). All three (3) boilers burn number 6 fuel oil only (Process 001). The two 23.4 mm Btu/hr boilers were installed in 1936 and the 31.8 mmBtu/hr boiler was installed in 1954. All three boilers burn number 6 fuel oil only (Process 001) and have a total heat input of 78.6 mm Btu/hr. Flue gas emissions are exhausted through a common stack which is identified as Emission Point E0001. These 3 boilers are being removed and replaced with the 3 new boilers under emission unit: U-00001.

Building(s): 1

Item 23.3:

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

Emission Unit: U-C0002

Emission Unit Description:

ONE (1) MITSUBISHI RUDOX EMERGENCY GENERATOR WITH A DESIGN CAPACITY OF 1200 KW AND BURNING NUMBER 2 FUEL OIL WILL BE OPERATED. THERE IS ANOTHER EXEMPT EMERGENCY GENERATOR. (CUMMINS, 1250 KW).

Building(s): 1

**Condition 24: Progress Reports Due Semiannually
Effective between the dates of 01/06/2014 and 01/05/2019**

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

Item 24.1:

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 25: Notification
Effective between the dates of 01/06/2014 and 01/05/2019**

Applicable Federal Requirement:6 NYCRR 202-1.2

Item 25.1:

A person who is required by the commissioner to submit a stack test report shall notify the commissioner, in writing, not less than 30 days prior to the test, of the time and date of the test.

Such notification shall also include the acceptable procedures to be used to stack test including sampling and analytical procedures. Such person shall allow the commissioner, or his representative, free access to observe stack testing being conducted by such person.

Condition 26: Acceptable procedures
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 202-1.3

Item 26.1:

Emission testing, sampling, and analytical determinations to ascertain compliance with this Subpart shall be conducted in accordance with test methods acceptable to the commissioner.

Condition 27: Acceptable procedures - Stack test report submittal
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 202-1.3

Item 27.1:

Emission test reports must be submitted in triplicate to the commissioner within 60 days after the completion of the tests, unless additional time is requested in writing.

Condition 28: Alternate test methods
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 202-1.3

Item 28.1:

Alternate emission test methods or deviations from acceptable test methods may be utilized if it is impractical to utilize the acceptable test methods or where no applicable test method is available, if prior acceptance of the proposed alternate method is granted by the commissioner.

Condition 29: Air pollution prohibited
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 211.1

Item 29.1:

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 30: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 225.1 (a) (3)

Item 30.1:

The Compliance Certification activity will be performed for the Facility.

Item 30.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

No person shall sell, offer for sale, purchase or use any distillate oil which has sulfur content greater than 0.20 percent by weight. A log of the sulfur content in oil per delivery must be maintained on site for a minimum of five years after the date of the last entry.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.20 percent by weight
Monitoring Frequency: PER DELIVERY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 6 calendar month(s).

Condition 31: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement: 6 NYCRR 225.1 (a) (3)

Item 31.1:

The Compliance Certification activity will be performed for the Facility.

Item 31.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

No person shall sell, offer for sale, purchase or use any residual oil which has sulfur content greater than 0.30 percent by weight. A log of the sulfur content in oil per delivery must be maintained on site for a minimum of five years after the date of the last entry.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: NUMBER 6 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.30 percent by weight
Monitoring Frequency: PER DELIVERY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.

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

Condition 32: Corrective action.
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 227-1.6 (b)

Item 32.1:

The commissioner may seal such stationary combustion installation so as to prevent any operation if the conditions of paragraphs 6 NYCRR Part 227-1.6(a)(1)-(3) are not met within the time provided by the order of final determination issued in the case of the violation.

Condition 33: Corrective action.
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 227-1.6 (c)

Item 33.1:

No person shall cause, permit, or allow the operation of any affected stationary combustion installation sealed by the commissioner in accordance with this section.

Condition 34: Corrective action.
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 227-1.6 (d)

Item 34.1:

No person except the commissioner or his representative shall remove, tamper with, or destroy any seal affixed to any affected stationary combustion installation.

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

Condition 35: Emission Point Definition By Emission Unit
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 35.1:

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

Emission Unit: U-C0001

Emission Point: E0001

Height (ft.): 140

Diameter (in.): 106

NYTMN (km.): 4493.1

NYTME (km.): 587.4

Building: 1

Condition 36: Process Definition By Emission Unit
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 36.1:

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

Emission Unit: U-00001
Process: NGB Source Classification Code: 1-03-006-02
Process Description:
Process BNG is when the 3 boilers rated 20.412 mmBtu/hr
fire natural gas and flue gases will exit via a common
stack

Emission Source/Control: S0006 - Combustion
Design Capacity: 20.412 million Btu per hour

Emission Source/Control: S0007 - Combustion
Design Capacity: 20.412 million Btu per hour

Emission Source/Control: S0008 - Combustion
Design Capacity: 20.412 million Btu per hour

Item 36.2:

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

Emission Unit: U-00001
Process: OIB Source Classification Code: 1-03-005-02
Process Description:
Process BOI is when 3 boilers rated 20.412 mmBtu/hr fire
no. 2 fuel oil and flue gases exit via a common stack

Emission Source/Control: S0006 - Combustion
Design Capacity: 20.412 million Btu per hour

Emission Source/Control: S0007 - Combustion
Design Capacity: 20.412 million Btu per hour

Emission Source/Control: S0008 - Combustion
Design Capacity: 20.412 million Btu per hour

Item 36.3:

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

Emission Unit: U-C0001
Process: 001 Source Classification Code: 1-03-004-01
Process Description:
Process 001 consists of one Keeler CP boiler with two (2)
burners, each with a maximum hourly heat input of 15.9
million Btu/hr, Total 31.8 million Btu/hr heat input,
(Emission Sources S0003), and two (2) Union Iron Works
boilers, with a maximum hourly heat input of 23.4 million
Btu/hr (Emission Source S0001 and S0002). All three (3)
boilers burn number 6 fuel oil only.

Process: OIB

Emission Source: S0008

Item 37.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operators of oil-fired boilers which are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

1) Observe the stack for each boiler which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).

2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:

- date and time of day
- observer's name
- identity of emission point
- weather condition
- was a plume observed?

Incident weather conditions shall be recorded for those days when observations are prohibited. This logbook must be retained at the facility for five (5) years after the date of the last entry.

3) If the operator observes any visible emissions (other than steam - see below) two consecutive days firing oil (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

**** NOTE **** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary, however, there is (normally) a

distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Monitoring Frequency: DAILY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 6 calendar month(s).

Condition 38: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

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

Item 38.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Item 38.2:
Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No owner or operator of a combustion installation shall operate the installation in such a way to emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average in reference test Method 9 in Appendix A of 40 CFR 60.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: Method 9
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 6 calendar month(s).

Condition 39: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

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

Regulated Contaminant(s):
CAS No: ONY075-00-0 PARTICULATES

Item 40.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The two hour average emission of particulates from this stationary combustion installation shall not exceed 0.10 pounds per million Btu of heat input.

At the monitoring frequency stated below the facility shall perform the following:

- 1) Submit to the Department an acceptable protocol for the testing of particulate emissions in a manner that will determine compliance with the limit cited in this condition.
- 2) Perform a stack test, based upon the approved test protocol, to determine compliance with the particulate emission limit cited in this condition.
- 3) Submit an acceptable stack test report that outlines the results obtained from the testing done to meet the requirement of #2 above.
- 4) Facility shall keep records of all testing done at this stationary combustion installation for a period of 5 years.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: EPA RM 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

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

Condition 41: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 227-1.3

Item 41.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-C0001

Item 41.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operators of oil-fired boilers which are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

1) Observe the stack for each boiler which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).

2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:

- date and time of day
- observer's name
- identity of emission point
- weather condition
- was a plume observed?

Inclement weather conditions shall be recorded for those days when observations are prohibited. This logbook must be retained at the facility for five (5) years after the date of the last entry.

3) If the operator observes any visible emissions (other than steam - see below) two consecutive days firing oil (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

**** NOTE **** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the

detached plume may vary, however, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Monitoring Frequency: DAILY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 6 calendar month(s).

Condition 42: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

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

Item 42.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-C0001

Item 42.2:
Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No owner or operator of a combustion installation shall operate the installation in such a way to emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average in reference test Method 9 in Appendix A of 40 CFR 60.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: 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 7/30/2014.
Subsequent reports are due every 6 calendar month(s).

Condition 43: Compliance Certification
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 227.2 (b) (1)

Item 43.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-C0001

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 43.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate emission limit for a stationary combustion installation firing oil. The owner or operator shall complete the following once per term of this permit:

- 1) submit, to the Department, an acceptable protocol for the testing of particulate emission limit cited in this condition,
- 2) perform a stack test, based upon the approved test protocol, to determine compliance with the particulate emission limit cited in this condition, and
- 3) all records shall be maintained at the facility for a minimum of five years.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.10 pounds per million Btus

Reference Test Method: Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

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

Condition 44: Compliance Certification

Effective between the dates of 01/06/2014 and 01/05/2019

Applicable Federal Requirement:6 NYCRR 227-1.3

Item 44.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-C0002

Item 44.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operators of oil-fired internal combustion engines which are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

1) Observe the stack for each internal combustion engine which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).

2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:

- weather condition
- was a plume observed?

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

3) If the operator observes any visible emissions (other than steam - see below) two consecutive days firing oil (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

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

Monitoring Frequency: DAILY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 6 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: 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 45: Contaminant List
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable State Requirement:ECL 19-0301

Item 45.1:

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

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

CAS No: ONY210-00-0
Name: OXIDES OF NITROGEN

Condition 46: Malfunctions and start-up/shutdown activities
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable State Requirement:6 NYCRR 201-1.4

Item 46.1:

(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 47: Visible Emissions Limited
Effective between the dates of 01/06/2014 and 01/05/2019

Applicable State Requirement:6 NYCRR 211.2

Item 47.1:

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted

burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Appendix A
Document 5.4-1
8-Step Floodplain Decision Making Notice

Executive Order 11988 (Floodplain Management) requires federal agencies “to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of the floodplain and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.” FEMA’s implementing regulations are at 44 CFR Part 9, which includes an eight-step decision making process for compliance with this part.

Coney Island Hospital (CIH) is located entirely within the 100-year floodplain. Therefore, the Proposed Coney Island Hospital Hazard Mitigation Project, described in the Environmental Assessment, is required to follow the 8-Step Process. This Appendix summarizes how the 8-Step Floodplain Decision Making Process was applied to the Proposed Coney Island Hospital Hazard Mitigation Project.

Step 1: Determine if a proposed action is in the base floodplain (that area which has a one percent or greater chance of flooding in any given year).

The project is located at 2601 Ocean Parkway, Brooklyn, NY (40.585595°,-73.964890°). As indicated in the FEMA Preliminary Flood Hazard Areas map for the Project Site (see **Figure 5.4-1**, FIRM panel 3604970354G), the entire Project Site is located within the base, or, 100-year floodplain (Zone AE) with a Base Flood Elevation (BFE) for the Project Site of +10 feet North American Vertical Datum of 1988 (NAVD88).

The Proposed Project is defined as a *Critical Action* pursuant to 44 CFR Part 9, which means that the minimum floodplain of concern is the 500-year Floodplain.

Step 2: Conduct early public review, including public notice.

A cumulative initial public notice was published in the New York Post on December 14, 2012. An additional Notice of Availability for the draft NEPA document will be published when the document is ready for public comment.

Step 3: Identify and evaluate practicable alternatives to locating in the base floodplain, including alternative sites outside of the floodplain.

Several alternative courses of action were evaluated for the CIH Hazard Mitigation project. The alternatives were evaluated based upon engineering constraints, environmental impacts and available property. Budgetary constraints were considered but were not the controlling factor.

Alternative 1: No Action Alternative

Under the No Action Alternative, no alterations would be made to the CIH campus or hospital facilities. The hospital would continue to operate with temporary repair measures to existing electrical and MEP systems installed following Hurricane Sandy, and no hazard mitigation would be pursued to enhance the hospital’s resiliency. The CIH campus and hospital facilities would remain at risk from future storm or flooding events with repetitive financial losses and

HHC Coney Island Hospital Hazard Mitigation

disruption of critical healthcare services. The surrounding community would experience service interruptions and threats to human health due to the loss of healthcare functions, particularly emergency care, in the event a future storm or flooding event causes a partial or full cessation of operations at CIH.

Alternative 2: Proposed Alternative: New Critical Services Structure

Due to the extensive nature of the work required to mitigate the flooding hazard at CIH, including raising the ED and supporting critical equipment, systems, and departments, including mechanical, electrical, and plumbing (MEP) equipment above the 500-year flood elevation, rerouting subsurface utility pathways, and elevating or hardening building communications and electrical service panels, a project alternative that provides maximum resiliency has been developed to provide a cost-efficient mitigation system. Specifically, the Proposed Alternative includes the construction of a New Critical Services Structure (NCSS) on the CIH campus, which will provide elevated space for critical hospital facilities and infrastructure with minimal disruptions to hospital functions during construction. The mitigation system is based on a Multiple-Lines-of-Defense (MLD) strategy as recommended by the U.S. Army Corps of Engineers for improving resiliency for crucial infrastructure.

The Proposed Alternative would mitigate the flooding hazard at CIH by raising the Emergency Department (ED) and mechanical, electrical, and plumbing (MEP) equipment above potential flood levels, rerouting subsurface utility pathways, and elevating or hardening communications and electrical service panels. To accommodate the raised ED and MEP equipment, a New Critical Services Structure (NCSS) would be constructed on the CIH campus to provide elevated space for critical hospital facilities and infrastructure. The 12-story NCSS would be located on the northern side of the CIH campus and would provide space for hospital functions that would be relocated from the existing CIH buildings and additional code-compliant upgraded spaces. As part of the project, the existing Power House building, Building 6, and the Hammett Pavilion would be demolished. A floodwall at the 100-year flood elevation plus three feet (freeboard and sea level rise) would be constructed around the perimeter of the Main Building and the Tower Building to provide added protection for non-critical functions in these buildings and improved stormwater management. In addition, a new parking garage would be constructed on the hospital campus (the parking garage is not part of the FEMA funded action but is considered). It is anticipated that services would be relocated as follows:

- The ED would be relocated to the second floor of the NCSS, which will be well above the 500-year flood elevation. The ED would be accessed from an entrance lobby and drop-off area facing Ocean Parkway and an ambulance ramp and drop-off apron leading to Avenue Z;
- Nine operating rooms, the Cardiac Catheterization Lab, and Central Sterile Supply facility would be relocated to the third and fourth floors of the NCSS to provide a code-compliant surgical suite that connects directly to the ED;
- A new inpatient imaging center would be created on the fourth floor of the NCSS;
- Inpatient beds that are currently in non-code-complaint spaces in the Main Building and the Hammett Pavilion would be relocated to the top four floors of the NCSS;
- MEP systems from elsewhere on the CIH campus, including the Central Plant building, would be relocated to elevated space on the fifth floor and fifth floor mezzanine in the NCSS. MEP systems include air handling units, emergency electrical switchgear rooms, medical gas systems, boiler plant, and chilled water plant; and,

- The roof of the NCSS would house the cooling tower, air conditioning units, and emergency generators.

The Proposed Alternative would also include renovations to the Main Building:

- The Behavioral Health Clinic would be relocated from the Hammett Pavilion to the seventh and eighth floors of the Main Building;
- The Data Center would be relocated from the Hammett Pavilion to the fifth floor of the Main Building;
- Engineering and administration offices would be relocated from Building 6 to the Main Building;
- Outpatient diagnostic facilities, including the imaging center and exam rooms, would be relocated from the first floor to the fifth floor; and,
- Functions on the first floor such as the morgue and ED administrative offices would be mitigated in place.

In addition, the second floor of the Tower Building would be renovated to create a corridor connecting the NCSS and the Main Building.

Alternative 3: Mitigation-In-Place

Alternative 3 would include measures to protect the existing CIH buildings and facilities by elevating the ED and critical MEP systems from the basement and first floor of CIH's buildings to at least the second floor. The ED would be relocated to the second floor of the Main Building; to accommodate the elevated ED and ED expansion for code compliance, a two-level addition would be constructed in the interior courtyard areas between the Main Building's north and south wings. Additional renovations would be made to create code-compliant inpatient nursing unit rooms and a new data center in the Main Building. Renovations would be performed throughout the Main Building and the Hammett Pavilion, as well as portions of the Tower Building, to elevate critical MEP systems, and a second level would be constructed on the Central Plant building to accommodate the elevated boilers and other MEP equipment. All mitigation work would be performed within the existing buildings, and no new structures would be constructed on the CIH campus.

Alternative 3 was dismissed due to code compliance issues and concerns regarding maintenance of hospital operations during the extensive renovation work that would be required. The code compliance issues specifically concern spaces in the Main Building that do not meet the requirements of the New York State Health Code under the Facility Guideline Institute (FGI) requirements and Section 711.3 as well as relocated MEP systems that will be required to comply with the appropriate MEP codes. With the Mitigation-in-Place project, upgrades to various floor spaces and equipment would be required due to their elevation and relocation to different floors to make them code-compliant. These upgrades are infeasible and cost-prohibitive due to the extensive phasing that would be required to keep the hospital operable throughout construction. This alternative would also take much longer to complete due to the phasing.

Alternative 4: Perimeter Floodwall

Alternative 4 would include the construction of a perimeter boundary and improved stormwater management measures as a first line of defense against floodwaters and contaminated water. The floodwall would be constructed around the perimeter of the CIH campus, supported on piles with a groundwater seepage cutoff wall below grade to prevent subsurface infiltration of floodwaters. To allow access to the hospital, several vehicular and pedestrian floodgates would

HHC Coney Island Hospital Hazard Mitigation

be included; these would be activated in the event of a flood event. The floodwall would be built to an elevation of 18 feet NAVD88, the 500-year flood elevation for the campus plus three feet of freeboard and sea level rise. A sanitary stormwater system, including a stormwater pump station on the northeast corner of the campus and a sanitary pump station on the northwest corner of the campus, would be constructed to remove stormwater and wastewater from the site. Both pumping stations would include an elevated emergency generator to ensure continued operation during a storm event.

Alternative 4 was dismissed because, while the floodwall provides a comparable level of protection as the proposed alternative, it does not achieve the goals of a Multiple-Lines-of-Defense strategy that is recommended for critical infrastructure.

Alternative Location

Relocating the existing Coney Island Hospital to another location outside of the 500-year floodplain is not practicable. Significant infrastructure investments have been made to the hospital over its nearly 110-year existence by the local, state, and federal government. Abandoning those investments is not practical. In addition, there are no sites in the vicinity of the Project Site that are of sufficient size and outside of the 500-year floodplain that are available to the Subgrantee. Therefore, relocation of the hospital complex is deemed impractical.

Step 4: Identify impacts of the proposed action.

The impacts of the Proposed Alternative, including those impacts to the natural function of the floodplain, have been identified and described in the Environmental Assessment. In summary, the Proposed Alternative supports the continued occupancy within the floodplain by restoring flood damaged facilities and equipment and by increasing the resiliency of the hospital through hazard mitigation projects, including a floodwall. The floodplain within the Project Site has been substantially developed prior to Hurricane Sandy. In addition, as the Project Site is located in a densely populated and built section of Brooklyn, the Proposed Alternative does not encourage further development within the floodplain. Finally, as shown in the H&H study (see Appendix A, Document 5.4B), there will be no significant impact on flood elevations in the immediate vicinity of the Project Site as a result of the construction of the floodwall and the resultant decrease in the amount of flood storage volume that is available.

The Proposed Alternative will have a tremendous positive impact on public health and safety. By repairing damaged components at this critical facility, the services being offered by the hospital can again be supported by permanent infrastructure. In addition, increasing the resiliency of the Project Site will allow for public health services to be maintained during future disasters. Finally, increasing the flood protection afforded to the hospital will save the city, state, and federal government significant expenses that would occur as a result of future flood events.

Step 5: If impacts cannot be avoided, develop measures to minimize the impacts and restore and preserve the floodplain, as appropriate.

The Proposed Alternative is not expected to result in significant adverse impacts, as discussed in the Environmental Assessment and summarized above in Step 4. Restoring the floodplain to its natural state is not a practical or viable alternative to the Proposed Alternative. The Proposed Alternative will be designed to meet or exceed all local, state, and federal permit rules, regulations, and permit conditions.

Step 6: Reevaluate alternatives.

The Proposed Alternative is the most practicable alternative based on the review of possible adverse effects on the floodplain and community/socioeconomic expectations. The public benefits of the Proposed Alternative outweigh the risk of investment in the floodplain located structures.

Step 7: Present the findings and a public explanation.

A cumulative initial public notice was published in the New York Post on December 14, 2012. An additional Notice of Availability of the draft Environmental Assessment will be published when the document is ready for public comment. Following the public comment period and consideration of any substantive comments received during the comment period, a Finding of No Significant Impact is anticipated. The Final Notice will be incorporated into this notice.

Step 8: Implement the action.

FEMA approval of the Proposed Alternative will be conditioned on review of implementation and post-implementation phases to ensure compliance with the order(s). All requirements stated in Section 6.0 of the Environmental Assessment will be fully implemented. Oversight responsibility shall be integrated into existing processes and project completion in accordance with all applicable local floodplain ordinances and codes and standards shall be verified at project closeout.

Appendix A
Document 5.4-2
Hydrology and Hydraulics

NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

CONEY ISLAND HOSPITAL ENVIRONMENTAL ASSESSMENT

Appendix 5.4B

Hydrology and Hydraulics

CONTENTS

- 1.0 INTRODUCTION 1
- 2.1 EXISTING CONDITIONS..... 2
 - 2.2 STORM TIDE 2
 - 2.3 WAVES..... 2
 - 2.4 INTERIOR DRAINAGE 3
 - 2.5 SUMMARY 3
- 3.1 PROPOSED CONDITIONS 5
 - 3.2 STORM TIDE REDUCTION AT CONEY ISLAND HOSPITAL 5
 - 3.3 STORM TIDE: NO-IMPACT TO ADJACENT PROPERTIES..... 5
 - 3.4 WAVE REDUCTION AT CONEY ISLAND HOSPITAL..... 6
 - 3.5 WAVE REFLECTION: NO-IMPACT TO ADJACENT PROPERTIES 7
 - 3.6 INTERIOR DRAINAGE 7
 - 3.7 SUMMARY 7

1.0 INTRODUCTION

Coney Island Hospital (CIH) lies within the 100-year and 500-year flood hazard area on FEMA's Preliminary Flood Insurance Rate Maps (PFIRM) that were released on January 30, 2015. This identified flood risk supports a need to protect this critical facility from flooding. CIH plays a critical role in serving patients throughout and following extreme events such as the 100-year and 500-year floods.

To reduce CIH's flood risk during the 100-year and 500-year flood event, a perimeter floodwall is proposed, designed to the 100-year water level plus freeboard to elevation 14 feet NAVD88, to protect non-critical hospital functions such as administrative offices. In tandem, critical hospital services are proposed to be housed within a new building with an elevation above the 500-year water level plus freeboard to elevation 18 feet NAVD88. Figure 1 summarizes the proposed flood mitigation strategies.

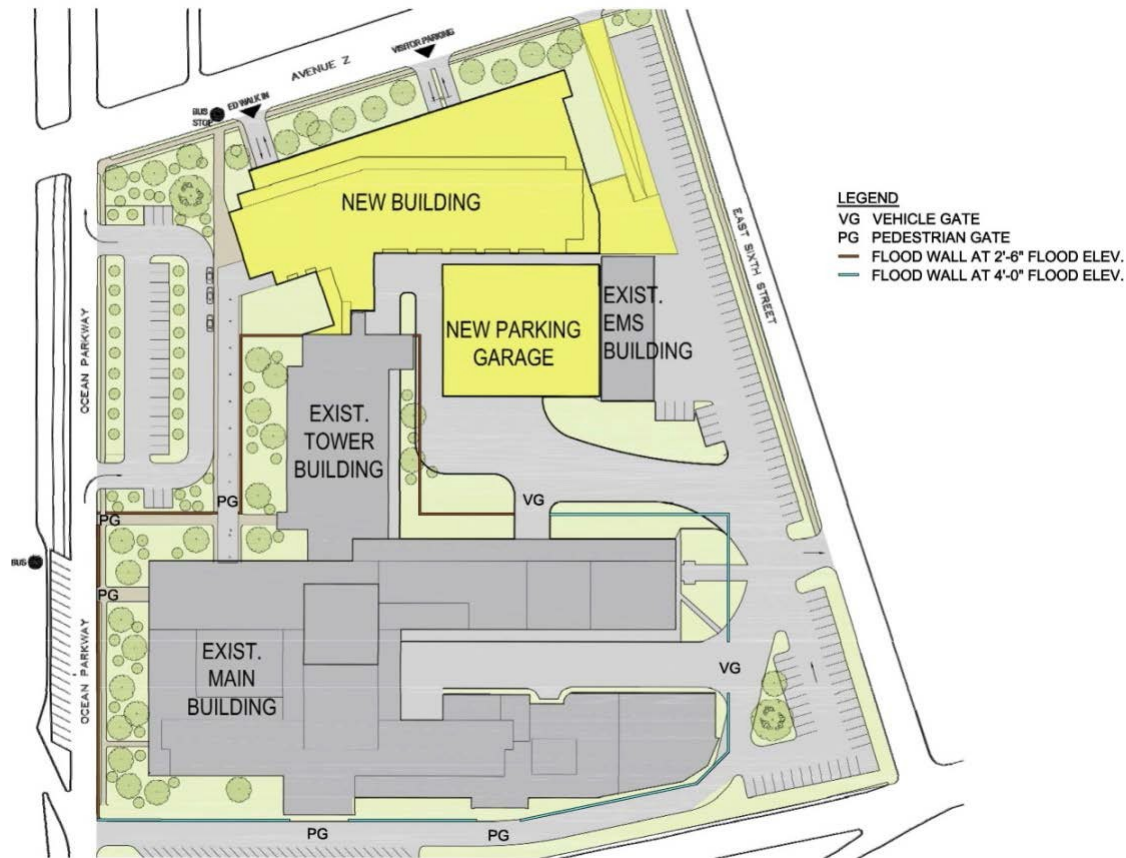


FIGURE 1. SCHEMATIC OVERVIEW OF PROPOSED FLOOD MITIGATION STRATEGIES, FLOODWALL IS AT ELEVATION 14 FEET, NAVD88.

In the following sections, CIH’s existing storm tide, wave, and interior drainage climate are discussed. This is the condition without the proposed mitigation strategies, i.e. the no action scenario. Additionally, the storm tide, wave, and interior drainage climate is discussed with the proposed mitigation strategy in place. Emphasis will be placed on the potential impacts that the proposed mitigation could have on adjacent properties.

2.0 EXISTING CONDITIONS

2.1 STORM TIDE

The storm tide elevations (referred to as stillwater elevations in FEMA’s flood insurance studies) that are contributing to the return interval flood risk that is displayed on FEMA’s PFIRM for CIH are as shown in Table 1. The storm tide (addition of storm surge and tide) is combined with waves to develop the preliminary Base Flood Elevations (pBFEs). Note that pBFEs are always rounded up or down to the nearest whole foot.

TABLE 1: FEMA PRELIMINARY BASE FLOOD AND STORM TIDE ELEVATIONS (FEET-NAVD88)

	100-year	500-year
Preliminary Base Flood Elevation	10	15
Storm Tide Elevation	10.3	14

Source: FEMA

2.2 WAVES

FEMA’s Preliminary Flood Insurance Study shows that the 100-year wave at the shoreline of Lower New York Bay at Coney Island Beach is 8.7 feet. Because of the numerous roadways and buildings between the shoreline at Coney Island Beach and CIH, the wave climate of 8.7 feet offshore is reduced to only very localized wind generated waves around CIH. As shown in Table 1, because the pBFE (rounded down to the nearest whole foot integer) is lower than the storm tide elevation, the waves are less than 0.2 feet at CIH (i.e. the pBFE is, at most, $10.49 - 10.3$ of storm tide = 0.19 of waves, at most).

For the 500-year event, because of the sheltered inland nature of CIH, it is expected that waves will be less than 1 feet with periods less than 2 seconds, characteristics of wind generated waves from short fetch, local sources. The resulting wave climate at CIH for the 100-year and 500-year water elevations are shown in Table 2.

TABLE 2: WAVE CLIMATE AT CONEY ISLAND HOSPITAL

	100-year	500-year
Wave Height (ft)	< 0.2 feet	<1 feet
Peak Wave Period (s)	< 1 s	< 2 s

2.3 INTERIOR DRAINAGE

The existing stormwater and sanitary flows from CIH are conveyed separately by gravity drainage to New York City (NYC) sewers. Sanitary sewage is conveyed to the Coney Island Water Pollution Control Plant (WPCP) and stormwater flows are conveyed to the head of Coney Island Creek. Figure 3 shows an overview schematic of the drainage areas associated with the Coney Island WPCP, highlighting that CIH is in a separately sewered area with stormwater discharging at outfall CI-641 at the head of Coney Island Creek.

This overview description of the sewer system highlights the numerous opportunities for storm tide to back up into the CIH site at existing connections to the sanitary or storm sewer network. Storm tide can penetrate the CIH site via:

- Stormwater outfall at Coney Island Creek
- Storm tide street flooding penetrating catch basins connected to the local storm network
- Storm tide backups through the sewer network

2.4 SUMMARY

The following points summarize the existing conditions at CIH:

- 100-year storm tide of 10.3 feet + < 0.2 feet waves
- 500-year storm tide of 14 feet + < 1 feet waves
- Interior drainage system connected to NYC stormwater and sanitary sewers exposed to storm tide at:
 - Outfall to Coney Island Creek
 - Street catch basins connected to the local stormwater sewer network
 - Backup through the sanitary sewer network



FIGURE 3. SCHEMATIC OVERVIEW OF THE CONEY ISLAND WPCP DRAINAGE NETWORK, CONEY ISLAND HOSPITAL IS IN THE DRAINAGE AREA TO 641 OUTFALL AT CONEY ISLAND CREEK, NYCDEP LANDSIDE MODELING REPORT, OCTOBER 2007.

3.0 PROPOSED CONDITIONS

3.1 STORM TIDE REDUCTION AT CONEY ISLAND HOSPITAL

With the proposed perimeter floodwall, CIH will be sheltered from the direct effects of the 100-year storm tide. Additionally, the critical services that will be moved to the new building will receive protection to the 500-year level. As design progresses through to completed construction, a letter of map revision can be pursued to demonstrate the reduced flood risk on the Flood Insurance Rate Maps.

Storm tide could penetrate behind the wall through any open pipes (storm sewer, sanitary sewer, etc.), but sufficient closure of these pipes through valves or watertight manholes will be included in the final design.

3.2 STORM TIDE: NO-IMPACT TO ADJACENT PROPERTIES

By removing the storm tide risk to CIH by the construction of a perimeter floodwall and the relocation of critical services to a new, elevated building above the 500-year flood level, the storm tide risk to adjacent properties will not be increased. This is because the storm tide volume that floods CIH and surrounding properties is controlled by regional storm tide levels in Lower New York Harbor and hence the Mid Atlantic Bight. These storm tide levels are circulated throughout the harbor and inland by regional current patterns that depend upon regional:

- Offshore water levels
- Wind patterns
- Bathymetric and topographic features

The storm tide can penetrate to CIH via overtopping the dunes at Coney Island Beach or through Sheepshead Bay or Coney Island Creek, as shown in Figure 4. Because of the regional control on storm tide levels, modifications to the CIH site will have negligible impacts on nearby storm tide flood levels, especially considering that the flood levels are reported to the nearest foot accuracy, i.e. +/- 0.5 feet.



FIGURE 4. REGIONAL INFLUENCE OF MID ATLANTIC BIGHT ON STORM TIDE LEVELS WITH PATHWAYS FOR STORM TIDE TO PENETRATE TO CIH INDICATED BY RED ARROWS.

3.3 WAVE REDUCTION AT CONEY ISLAND HOSPITAL

The proposed perimeter floodwall will shelter CIH from waves during the 100-year event. Additionally, the critical services relocated to the new building will be removed from exposure to the 500-year waves. However, the non-critical services that are mitigated behind the perimeter floodwall will be exposed to significant wave overtopping during a 500-year event. Scour protection on the backside of the wall will be incorporated into the final design to ensure that wave overtopping will not undermine the wall. Additionally, sufficient drainage will be designed behind the wall to handle the overtopped wave volumes.

3.4 WAVE REFLECTION: NO-IMPACT TO ADJACENT PROPERTIES

Because CIH is offset hundreds of feet inland from Coney Island Beach, the wave climate near CIH is limited to locally generated wind waves. CIH is sheltered from wave exposure by topography associated with the Belt Parkway to the south and by buildings to the east, west, and north. As a result, only locally generated wind waves have opportunity to impact CIH and nearby properties. Because of the short wind fetch distances from CIH to the nearest obstructions, these waves do not have enough fetch length to grow. It is conservatively expected, even during the 500-year event, that local wind generated waves will be less than 1 feet. This demonstrates the small wave climate with or without the proposed floodwall and therefore, the lack of impact by the wall on nearby properties.

3.5 INTERIOR DRAINAGE

With the proposed perimeter floodwall in place, the existing sanitary and stormwater drainage systems will be modified to continue conveying drainage from behind the wall during a storm tide event and also to prevent storm tide backup from NYC sewers into CIH. The following will be required during a storm tide event:

- Valves on existing connections to NYC sewers to prevent exterior storm tide backflows
- Continued conveyance of on-site stormwater and sanitary flows
- Pumps sufficient to evacuate water from basements to elevations above the storm tide

3.6 SUMMARY

The following points summarize conditions with the proposed flood risk reduction strategies at CIH:

- Direct storm tide and wave risk reduced behind the wall and at the new building
- No storm tide or wave impact to adjacent properties
- Interior drainage modified to prevent storm tide backflow behind the wall and to convey sanitary and stormwater flows during a storm tide event

Appendix A
Document 5.7-1
U.S. Department of the Interior
Correspondence



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Code: 05E1LI00-2015-SLI-0036

February 05, 2015

Event Code: 05E1LI00-2015-E-00036

Project Name: NYC HHC Coney Island Hospital

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

Official Species List

Provided by:

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Consultation Code: 05E1LI00-2015-SLI-0036

Event Code: 05E1LI00-2015-E-00036

Project Type: Development

Project Name: NYC HHC Coney Island Hospital

Project Description: The New York City Health and Hospitals Corporation (HHC), which operates the city's public healthcare system, is proposing a comprehensive flood mitigation project (the proposed project) for Coney Island Hospital (CIH), its healthcare facility located on the superblock bounded by Ocean Parkway, Avenue Z, East 6th Street, and the Shore Parkway in the Coney Island neighborhood of Brooklyn (Block 7239, Lot 1).

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.9638453 40.5869046, -73.9633947 40.5846403, -73.9663773 40.58451, -73.9658408 40.5866765, -73.9638453 40.5869046)))

Project Counties: Kings, NY

Endangered Species Act Species List

There are a total of 5 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Piping Plover (<i>Charadrius melodus</i>) Population: except Great Lakes watershed	Threatened	Final designated	
Red Knot (<i>Calidris canutus rufa</i>)	Threatened		
Roseate tern (<i>Sterna dougallii dougallii</i>) Population: northeast U.S. nesting pop.	Endangered		
Flowering Plants			
Seabeach amaranth (<i>Amaranthus pumilus</i>)	Threatened		
Mammals			
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		

Critical habitats that lie within your project area

There are no critical habitats within your project area.