

Facility DEC ID: 3555400036

PERMIT Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility Permit ID: 3-5554-00036/00023

Effective Date: 11/20/2018 Expiration Date: 11/19/2023

Permit Issued To:INTERNATIONAL BUSINESS MACHINES CORPORATION

NEW ORCHARD RD ARMONK, NY 10504

Contact: NICOLETTE VISALLI

THOMAS J WATSON RESEARCH CENTER

PO BOX 218

YORKTOWN HEIGHTS, NY 10598-0218

(914) 945-2344

Facility: THOMAS J WATSON RESEARCH CENTER

1101 KITCHAWAN RD/ST RTE 134 YORKTOWN HEIGHTS, NY 10598

Contact: FRANK LANGONE

THOMAS J WATSON RESEARCH CENTER ST RTE 134 & KITCHAWAN RD PO BOX 218 YORKTOWN HEIGHTS, NY 10598-0218

(914) 945-2962

Description:

Thomas J. Watson is a research center for IBM corporation and maintains the following air emission sources: Three boilers, each rated at 35.2 MMBtu/hr (note that boilers were de-rated below 25 MMBtu/hr operating on No. 6 fuel oil during last Title V permit renewal); four emergency generators, rated at 1500 KW, 1500 KW, 300 KW and 250 KW; two above ground propane tanks; and various exempt sources such as laboratory hood, space and water heaters. The facility is major source for NOx emissions. This permit renewal returns the three boilers (emission unit A-00001) to their original nameplate maximum heat input (35.2 MMbtu/hr) and for the boilers fuel switching conversion to distillate No. 2 fuel oil and cleaner compressed natural gas (CNG).

The boilers will comply with 6NYCRR Subpart 227-2 NOx RACT requirements for midsize boiler. A mid-size boiler is defined as a boiler with a maximum heat input capacity greater than 25 million Btu per hour and equal to or less than 100 million Btu per hour. Process N2F (No. 2 fuel oil) will replace the No. 6 fuel oil process OIL and will begin as soon as the burner conversion to No. 2 fuel oil has been completed (expected by July 31, 2018). All three boilers



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are expected to be dual fuel with the installation of low-NOx burners sometime during the term of the permit. The firing with compressed natural gas (Process CNG) will be the primary fuel once gas delivered on site becomes available with No. 2 fuel oil as backup.

For NOx RACT, the facility will utilize the fuel switching option as allowed under 6 NYCRR Subpart 227-2.5 (a). According to 6 NYCRR Subpart 227-2.5 (a), fuel switching must result in quantifiable annual NOx emissions equal to or less than the NOx emissions expected if the emission source complied with the applicable presumptive RACT emission limits set forth in 6 NYCRR Subpart 227-2.4(c)(1)(ii). The three boilers were operating on No.6 fuel oil, and as per 6 NYCRR Subpart 227-2.5 (a), the NOx RACT limit will remain at 0.20 pounds per million Btu per hour for Residual Oil/Gas rather than 0.08 pounds per million Btu for Distillate Oil/Gas.

The return of the boilers to mid-size requires new source review under 6 NYCRR Subpart Part 231.6 for modification at a major facility. However, with the fuel switch RACT limit, the mid-size boilers NOx projected worst case emissions will be lower than baseline emissions and as such the facility will comply with recordkeeping provision of 6 NYCRR Subpart 231-11.2. In addition, the boilers are subjected to SIP particulate emission requirements under 6 NYCRR Subpart 227.2(b)(1) and boiler tune-up under 40 CFR 63 Subpart JJJJJJ.

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:	REBECCA S CRIST				
	21 S PUTT CORNERS RD				
	NEW PALTZ, NY 12561				
Authorized Signature:		Date:	/	/	



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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.



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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 3 HEADQUARTERS

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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.

Item3.2:

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

Item 3.3

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

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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 3
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 3 Headquarters Division of Environmental Permits 21 South Putt Corners Road New Paltz, NY 12561-1696 (845) 256-3054



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ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

Permit Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Issued To:INTERNATIONAL BUSINESS MACHINES CORPORATION NEW ORCHARD RD ARMONK, NY 10504

Facility: THOMAS J WATSON RESEARCH CENTER

1101 KITCHAWAN RD/ST RTE 134 YORKTOWN HEIGHTS, NY 10598

Authorized Activity By Standard Industrial Classification Code: 3571 - ELECTRONIC COMPUTERS

Permit Effective Date: 11/20/2018 Permit Expiration Date: 11/19/2023



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LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS Facility Level

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6 NYCRR 201-6.4 (a) (7): Fees
- 3 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
- 4 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
- 5 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR 215.2: Open Fires Prohibitions
- 10 6 NYCRR 200.7: Maintenance of Equipment
- 11 6 NYCRR 201-1.7: Recycling and Salvage
- 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6 NYCRR 201-3.2 (a): Exempt Sources Proof of Eligibility
- 14 6 NYCRR 201-3.3 (a): Trivial Sources Proof of Eligibility
- 15 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 16 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 17 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 18 6 NYCRR 202-1.1: Required Emissions Tests
- 19 40 CFR Part 68: Accidental release provisions.
- 20 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 21 6 NYCRR Subpart 201-6: Emission Unit Definition
- 22 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 23 6 NYCRR 211.1: Air pollution prohibited
- 24 6 NYCRR 225-1.2 (h): Compliance Certification
- 25 6 NYCRR 227-2.5 (a): Compliance Certification
- 26 6 NYCRR 227.2 (b) (1): Compliance Certification
- 27 6 NYCRR 231-11.2 (b): Compliance Certification
- 28 40CFR 63.11223(b), Subpart JJJJJJ: Compliance Certification

Emission Unit Level

- 29 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 30 6 NYCRR Subpart 201-6: Process Definition By Emission Unit

EU=A-00001

31 6 NYCRR 227-1.3 (a): Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS Facility Level

- 32 ECL 19-0301: Contaminant List
- 33 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities



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FEDERALLY ENFORCEABLE CONDITIONS **** Facility Level ****

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

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

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

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

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

Item C: Certification by a Responsible Official - 6 NYCRR 201-6.2 (d) (12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item D: Requirement to Comply With All Conditions - 6 NYCRR 201-6.4 (a) (2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR 201-6.4 (a) (3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and

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reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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

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

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

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

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

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

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

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

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V



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facility for any violation of applicable requirements prior to or at the time of permit issuance;

- iii. The applicable requirements of Title IV of the Act:
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

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

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

- i. When additional applicable requirements under the act become applicable to a title V facility with a remaining permit term of three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the department pursuant to the provisions of section 201- 6.6 of this Subpart.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.
- iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit



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is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item K: Permit Exclusion - ECL 19-0305

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

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

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

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

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

Condition 1: Acceptable Ambient Air Quality

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 200.6

Item 1.1:

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



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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 11/20/2018 and 11/19/2023

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

Item 2.1:

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

Condition 3: Recordkeeping and Reporting of Compliance Monitoring

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 3.1:

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

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

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

Condition 4: Records of Monitoring, Sampling, and Measurement

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 4.1:

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



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reports required by the permit.

Condition 5: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 5.1:

The Compliance Certification activity will be performed for the Facility.

Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

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

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

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

- (1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
- (2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
- (3) For all other deviations from permit requirements,



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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



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report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2019. Subsequent reports are due every 6 calendar month(s).

Condition 6: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 6.1:

The Compliance Certification activity will be performed for the Facility.

Item 6.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

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

- i. Compliance certifications shall contain:
- the identification of each term or condition of the permit that is the basis of the certification;
- the compliance status;
- whether compliance was continuous or intermittent;
- the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related record keeping and reporting requirements of this permit;
- such other facts as the Department may require to determine the compliance status of the facility as



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specified in any special permit terms or conditions; and

- such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All annual compliance certifications may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). The mailing addresses for the above referenced persons are:

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

The address for the RAPCE is as follows:

Regional Air Pollution Control Engineer NYSDEC 21 South Putt Corners Road New Paltz, NY 12561-1696

The address for the BQA is as follows:

NYSDEC



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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 1/30/2019.

Subsequent reports are due on the same day each year

Condition 7: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 202-2.1

Item 7.1:

The Compliance Certification activity will be performed for the Facility.

Item 7.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year

Monitoring Frequency: ANNUALLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

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

Condition 8: Recordkeeping requirements

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 202-2.5

Item 8.1:

- (a) The following records shall be maintained for at least five years:
 - (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.
- (b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

Condition 9: Open Fires - Prohibitions

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 215.2



Permit ID: 3-5554-00036/00023 Facility DEC ID: 3555400036

Item 9.1:

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

Item 9.2

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

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
- (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
- (i) Prescribed burns performed according to Part 194 of this Title.
- (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
- (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
- (l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

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



Permit ID: 3-5554-00036/00023 Facility DEC ID: 3555400036

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

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

Condition 10: Maintenance of Equipment

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 200.7

Item 10.1:

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

Condition 11: Recycling and Salvage

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 201-1.7

Item 11.1:

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

Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 201-1.8

Item 12.1:

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

Condition 13: Exempt Sources - Proof of Eligibility

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 13.1:

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

Condition 14: Trivial Sources - Proof of Eligibility

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Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 14.1:

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 15: Requirement to Provide Information

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 15.1:

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 16: Right to Inspect

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 16.1:

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 17: Off Permit Changes



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Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 17.1:

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 18: Required Emissions Tests

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 202-1.1

Item 18.1:

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 19: Accidental release provisions.

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 40 CFR Part 68

Item 19.1:

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:

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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 20: Recycling and Emissions Reduction

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 20.1:

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 21: Emission Unit Definition

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 21.1:

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

Emission Unit: A-00001 Emission Unit Description:

This unit consists of three (3) boilers each rated at 35.2 MMBtu/hr burning distillate No. 2 fuel oil (Process N2F). Boilers were derated to 25 MMBtu/hr but are expected to return (un-derated) to 35.2 MMBtu/hr with the installation of dual fuel low-NOx burners sometime during the permit term. The firing with compressed natural gas (Process CNG) will be the primary fuel once gas delivery on site becomes available with No. 2 fuel oil as backup.

Building(s): BLDG B/801 Temp B/801

Item 21.2:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: A-00002



Permit ID: 3-5554-00036/00023 Facility DEC ID: 3555400036

Emission Unit Description:

This emission unit consists of various above ground storage tanks containing liquified propane.

Building(s): S of B/801 W OF B/808

Item 21.3:

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

Emission Unit: E-I0001 Emission Unit Description:

This unit comprises all emergency generators in the facility. The generators are exempt sources as they are permitted to operate up to 500 hours per year. The facility has to maintain records pertaining to their operation.

Item 21.4:

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

Emission Unit: U-00016 Emission Unit Description:

The IBM Thomas J Watson Yorktown site is a research facility consisting of one building with various laboratories used for research and development. Fume hood exhausts from some of these labs are manifolded to exhaust plenums on the roof. For the sake of this permit, the entire building has been considered as one discharge point.

Condition 22: Progress Reports Due Semiannually

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 22.1:

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 23: Air pollution prohibited

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 211.1

Item 23.1:



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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 24: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 24.1:

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

Emission Unit: A-00001

Process: N2F

Item 24.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC **OPERATIONS**

Monitoring Description:

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

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

Work Practice Type: PARAMETER OF PROCESS MATERIAL Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Parameter Monitored: SULFUR CONTENT Upper Permit Limit: 0.0015 percent by weight Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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Condition 25: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 227-2.5 (a)

Item 25.1:

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

Emission Unit: A-00001

Emission Unit: A-00001

Process: CNG

Emission Unit: A-00001

Process: N2F

Regulated Contaminant(s):

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

Item 25.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

This condition applies to the three mid-size boilers (Emission Unit A-00001) each rated at 35.2 MM Btu/hr. A mid-size boiler is defined as a boiler with a maximum heat input capacity greater than 25 million Btu per hour and equal to or less than 100 million Btu per hour. Process N2F (No. 2 fuel oil) will replace the No. 6 fuel oil process OIL. The three boilers are expected to be converted to dual fuel with the installation of low-NOx burners sometime during the term of the permit. The firing with compressed natural gas (Process CNG) will occur once gas delivered on site becomes avaliable with No. 2 fuel oil as backup.

For NOx RACT, the facility will utilize the fuel switching option as allowed under 6 NYCRR Subpart 227-2.5 (a). According to 6 NYCRR Subpart 227-2.5 (a), fuel switching must result in quantifiable annual NOx emissions equal to or less than the NOx emissions expected if the emission source complied with the applicable presumptive RACT emission limits set forth in 6 NYCRR Subpart 227-2.4(c)(1)(ii). The three boilers were operating on No.6 fuel oil, and as per 6 NYCRR Subpart 227-2.5 (a), the NOx RACT limit will remain at 0.20 pounds per million Btu per hour for Residual Oil/Gas rather than 0.08 pounds per million Btu for Distillate Oil/Gas.

Stacking testing to demonstration compliance will the



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applicable emission limit shall follow the testing protocol and requirements of 6 NYCRR Subpart 202-1.

Upper Permit Limit: 0.20 pounds per million Btus

Reference Test Method: 40 CFR 60 Appendix A, Method 7, 7E or 19 Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 26: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 26.1:

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

Emission Unit: A-00001

Process: N2F

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 26.2:

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

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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The initial report is due 1/30/2019. Subsequent reports are due every 12 calendar month(s).

Condition 27: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR 231-11.2 (b)

Item 27.1:

The Compliance Certification activity will be performed for the Facility.

Item 27.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

For a modification with a project emission potential that does not utilize the emissions exclusion allowed under section 231-4.1(b)(41)(i)(c) of this Part and which is less than 50 percent of the applicable significant project threshold in Table 3, Table 4 or Table 6 of Subpart 231-13 of this Part, or for a modification with a project emission potential which when added to emissions excluded in accordance with clause 231-4.1(b)(41)(i)(c) of this Part is less than 50 percent of the applicable significant project threshold in Table 3, Table 4 or Table 6 of Subpart 231-13 of this Part, the facility owner or operator, in addition to complying with any requirements under Part 201 of this Title, must maintain the following information for a minimum of five years:

- (1) A description of the modification.
- (2) An identification of each new or modified emission source(s) including the associated processes and emission unit.
- (3) The calculation of the project emission potential for each modified emission source(s) including supporting documentation.
- (4) The date the modification commenced operation.

These recordkeeping requirements apply to exempt and trivial activities but do not affect their exempt or trivial permitting status under Subpart 201-3 of this Title. The facility must submit these records to the Department, upon the Department's request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION



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Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 28: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 40CFR 63.11223(b), Subpart JJJJJJ

Item 28.1:

The Compliance Certification activity will be performed for the Facility.

Item 28.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Except as specified in 40 CFR 63.11223(c) through (f), the owner or operator of an industrial, commercial, or institutional boiler must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (1) through (7). Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.

- (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the owner or operator may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
- (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the owner or operator may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
- (4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide

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requirement to which the unit is subject.

- (5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- (6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (i) through (iii).
- (i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
- (ii) A description of any corrective actions taken as a part of the tune-up of the boiler.
- (iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- (7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2019.

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

**** Emission Unit Level ****

Condition 29: Emission Point Definition By Emission Unit Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 29.1:

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

Emission Unit: A-00001



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Emission Point: 00010

Height (ft.): 41 Diameter (in.): 36

NYTMN (km.): 4562.763 NYTME (km.): 600.292 Building: BLDG B/801

Emission Point: 00011

Height (ft.): 41 Diameter (in.): 36

NYTMN (km.): 4562.759 NYTME (km.): 600.287 Building: BLDG B/801

Emission Point: 00012

Height (ft.): 41 Diameter (in.): 36

NYTMN (km.): 4562.756 NYTME (km.): 600.286 Building: BLDG B/801

Emission Point: 00013

Height (ft.): 41 Diameter (in.): 36

NYTMN (km.): 4562.764 NYTME (km.): 600.292 Building: Temp B/801

Condition 30: Process Definition By Emission Unit

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 30.1:

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

Emission Unit: A-00001

Process: CNG Source Classification Code: 1-03-006-02

Process Description:

Process boilers firing compressed natural gas. The compressed natural gas process will be utilzed once gas

delivery on site becomes available.

Emission Source/Control: 00001 - Combustion Design Capacity: 35.2 million Btu per hour

Emission Source/Control: 00002 - Combustion Design Capacity: 35.2 million Btu per hour

Emission Source/Control: 00003 - Combustion Design Capacity: 35.2 million Btu per hour

Item 30.2:

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

Emission Unit: A-00001

Process: N2F Source Classification Code: 1-03-005-02

Process Description:

Process boilers using distillate number 2 fuel oil. The fuel oil process will begin as soon as the burner

conversion to No. 2 fuel oil has been completed (expected

by July 31, 2018).



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Emission Source/Control: 00001 - Combustion Design Capacity: 35.2 million Btu per hour

Emission Source/Control: 00002 - Combustion Design Capacity: 35.2 million Btu per hour

Emission Source/Control: 00003 - Combustion Design Capacity: 35.2 million Btu per hour

Item 30.3:

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

Emission Unit: A-00002

Process: LPT Source Classification Code: 2-02-010-06

Process Description:

Two 120 gallon propane storage tanks located aboveground.

Emission Source/Control: LPT01 - Process

Item 30.4:

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

Emission Unit: E-I0001

Process: E04 Source Classification Code: 2-02-004-01

Process Description: Emergency generators using diesel.

Emission Source/Control: GEN01 - Combustion

Design Capacity: 1,500 kilowatts

Emission Source/Control: GEN02 - Combustion

Design Capacity: 1,500 kilowatts

Emission Source/Control: GEN03 - Combustion

Design Capacity: 250 kilowatts

Emission Source/Control: GEN04 - Combustion

Design Capacity: 300 kilowatts

Item 30.5:

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

Emission Unit: U-00016

Process: 005 Source Classification Code: 3-12-999-99

Process Description:

The IBM Thomas J Watson Yorktown site is a research facility consisting of one building with various laboratories used for research and development. Fume hood exhausts from some of these labs are manifolded to exhaust plenums on the roof. For the sake of this permit, the entire building has been considered as one discharge point.



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Emission Source/Control: 0000C - Process

Condition 31: Compliance Certification

Effective between the dates of 11/20/2018 and 11/19/2023

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

Item 31.1:

The Compliance Certification activity will be performed for:

Emission Unit: A-00001

Item 31.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one-six-minute period per hour of not more than 27 percent opacity. In addition, the Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

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

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

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



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acceptable to the Department.

Parameter Monitored: OPACITY Upper Permit Limit: 20 percent Reference Test Method: Method 9 Monitoring Frequency: DAILY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



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

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

Item A: Emergency Defense - 6 NYCRR 201-1.5

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

- (a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;
- (3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- (c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and



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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 32: Contaminant List

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable State Requirement: ECL 19-0301

Item 32.1:

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: 0NY210-00-0

Name: OXIDES OF NITROGEN

Condition 33: Malfunctions and start-up/shutdown activities

Effective between the dates of 11/20/2018 and 11/19/2023

Applicable State Requirement: 6 NYCRR 201-1.4

Item 33.1:

- (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

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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.