



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

**IDENTIFICATION INFORMATION**

Permit Type: Air State Facility  
Permit ID: 4-4224-00024/00039  
Mod 0 Effective Date: 04/04/2000 Expiration Date: No expiration date.  
Mod 1 Effective Date: 06/06/2002 Expiration Date: No expiration date.  
Mod 2 Effective Date: 12/07/2009 Expiration Date: No expiration date.  
Mod 3 Effective Date: 07/24/2009 Expiration Date: No expiration date.

Permit Issued To: U S DEPT OF ENERGY  
1000 INDEPENDENCE AVE SW  
WASHINGTON, DC 20585

Contact: DAVID A DELWICHE  
US DEPT OF ENERGY NRLFO  
PO BOX 1069  
SCHENECTADY, NY 12301-1069  
(518) 395-6366

Facility: USDOE KNOLLS ATOMIC POWER LABORATORY-KNOLLS SITE  
2401 RIVER RD  
NISKAYUNA, NY 12309

Contact: DAVID A DELWICHE  
US DEPT OF ENERGY NRLFO  
PO BOX 1069  
SCHENECTADY, NY 12301-1069  
(518) 395-6366

**Description:**

This application is being submitted to consolidate air emission sources at the Knolls Atomic Power Laboratory (Knolls Site) under a single Air State Facility Permit (DEC#4-4224-00024/00039) and remove the four old site heating boilers designated as emission points 00001-00004 from this permit. The modified permit now covers three (3) Johnston Boiler Company (JBC) firetube heating boilers designated as emission point numbers 00032-00034 and two (2) natural gasfired water heaters (East and West) rated at 15.1 million BTUs/HR and 14.7 million BTUs/HR respectively, which exhaust through a common stack permitted under (DEC#4-4224-00024/00029-0) issued in August 1995 and designated as emission point number 00030. Emissions from processes or emission units that qualify as exempt sources under 6 NYCRR 201-3.2 have also been proved to demonstrate that the emissions from the Knolls site (Facility) do not exceed Title V permitting criteria. The JBC heating boilers (site heating boilers) are designed to combust natural gas as their primary fuel and distillate oil (number 1 or number 2 fuel oils) as the backup. The water heaters are designed to combust natural gas only.



The Knolls site is requesting that the JBC heating boilers heat input and fuel usage be capped. The caps requested are as follow: the heating boilers heat input is to be limited to 162.4 billion BTUs during and 12-month period. The quantity of fuel combusted during any twelve (12) month period shall not exceed 1.16 million gallons of distillate oil or 159.2 million standard cubic feet (SCF) of natural gas or any combination of the two (that will not exceed a total heat value of 162.4 billion BTUs during any 12-month period). The 159.2 million SCF of natural gas is based on an AP-42 heat content value of 1020 BTUs/SCF vice the 1049 BTUs/SCF value used in the previous permit application.

The water heater's fuel usage and emissions will not be capped and are based on their maximum potential to emit.

Due to the nature of the work performed at the Knolls site, certain operations are subject to the federal radionuclide NESHAPS provisions of 40 CFR Part 61, Subpart H. NYSDEC has taken delegated authority and is presently implementing state administration of these regulations on a phased approach. Until such time that NYSDEC formally implements these regulations, these operations will remain under federal (EPA) jurisdiction.

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:           NANCY M BAKER  
  NYSDEC  
  1130 N WESTCOTT RD  
  SCHENECTADY, NY 12306-2014

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
  - Applications for Permit Renewals and Modifications
  - Permit Modifications, Suspensions, and Revocations by the Department

**Facility Level**

- Submission of Applications for Permit Modification or Renewal -REGION 4 HEADQUARTERS
- Submission of application for permit modification or renewal-REGION 4 HEADQUARTERS



**DEC GENERAL CONDITIONS**  
**\*\*\*\* General Provisions \*\*\*\***  
**GENERAL CONDITIONS - Apply to ALL Authorized Permits.**

**Condition 1: Facility Inspection by the Department**

**Applicable State Requirement: ECL 19-0305**

**Item 1.1:**

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

**Item 1.2:**

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

**Item 1.3:**

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

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

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

**Item 2.1:**

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

**Condition 2-1: Applications for permit renewals, modifications and transfers**

**Applicable State Requirement: 6 NYCRR 621.11**

**Item 2-1.1:**

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

**Item 2-1.2:**

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

**Item 2-1.3:**

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



**Condition 2-2: Permit modifications, suspensions or revocations by the Department**

**Applicable State Requirement: 6 NYCRR 621.13**

**Item 2-2.1:**

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

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

**Condition 3: Applications for Permit Renewals and Modifications**

**Applicable State Requirement: 6 NYCRR 621.13 (a)**

**Expired by Mod No: 2**

**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.

**Condition 4: Permit Modifications, Suspensions, and Revocations by the Department**

**Applicable State Requirement: 6 NYCRR 621.14**

**Expired by Mod No: 2**

**Item 4.1:**

The Department reserves the right to modify, suspend, or revoke this permit. The grounds for modification, suspension or revocation include:

- a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
- b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
- c) new material information is discovered; or
- d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.



\*\*\*\* Facility Level \*\*\*\*

**Condition 5: Submission of Applications for Permit Modification or Renewal -REGION 4  
HEADQUARTERS**

**Applicable State Requirement: 6 NYCRR 621.5 (a)**

**Expired by Mod No: 2**

**Item 5.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 4 Headquarters  
Division of Environmental Permits  
1150 North Wescott Rd.  
Schenectady, NY 12306-2014  
(518) 357-2068

**Condition 2-3: Submission of application for permit modification or  
renewal-REGION 4**

**HEADQUARTERS**

**Applicable State Requirement: 6 NYCRR 621.6 (a)**

**Item 2-3.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 4 Headquarters  
Division of Environmental Permits  
1130 North Westcott Rd.  
Schenectady, NY 12306-2014  
(518) 357-2069

**New York State Department of Environmental Conservation**

Permit ID: 4-4224-00024/00039

Facility DEC ID: 4422400024



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

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY  
PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: U S DEPT OF ENERGY  
1000 INDEPENDENCE AVE SW  
WASHINGTON, DC 20585

Facility: USDOE KNOLLS ATOMIC POWER LABORATORY-KNOLLS SITE  
2401 RIVER RD  
NISKAYUNA, NY 12309

Authorized Activity By Standard Industrial Classification Code:  
8731 - COMMERCIAL PHYSICAL RESEARCH

Mod 0 Permit Effective Date: 04/04/2000  
date.

Permit Expiration Date: No expiration  
date.

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date.

Mod 2 Permit Effective Date: 12/07/2009  
date.

Permit Expiration Date: No expiration  
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## LIST OF CONDITIONS

### FEDERALLY ENFORCEABLE CONDITIONS

#### Facility Level

- 2-1 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 2-2 6 NYCRR 201-3.2 (b): Exempt Activities - Maintenance of Control Equipment
- 2-3 6 NYCRR 201-3.3 (b): Trivial Activities - Maintenance of Control Equipment
- 17 6 NYCRR 225-1.8 (a): Compliance Demonstration
- 2-4 6 NYCRR 227-1.6: Corrective Action
- 2-5 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 2-6 40CFR 60.48c(j), NSPS Subpart Dc: Compliance Demonstration
- 2-7 40CFR 61.145, NESHAP Subpart M: Demolition and Renovation
- 2-8 40CFR 82, Subpart H: Halon Emissions Reduction

#### Emission Unit Level

- 2-9 6 NYCRR Subpart 201-7: Emission Unit Permissible Emissions

#### EU=H-BOILR

- \*2-10 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 30 6 NYCRR 227-1.3 (a): Compliance Demonstration
- 2-11 40CFR 60, NSPS Subpart A: Compliance Demonstration
- 2-12 40CFR 60.42c(i), NSPS Subpart Dc: Enforceability.
- 2-13 40CFR 60.44c(h), NSPS Subpart Dc: Alternative compliance methods for sulfur dioxide.
- 2-14 40CFR 60.46c(d)(2), NSPS Subpart Dc: Compliance Demonstration
- 2-15 40CFR 60.46c(e), NSPS Subpart Dc: Exemption from sulfur dioxide monitoring requirements.
- 2-16 40CFR 60.48c(i), NSPS Subpart Dc: Compliance Demonstration

#### EU=H-BOILR,Proc=GAS

- \*2-17 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 2-18 40CFR 60.48c(g), NSPS Subpart Dc: Compliance Demonstration

#### EU=H-BOILR,Proc=OIL

- \*2-19 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*2-20 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 2-21 6 NYCRR 227-1.3: Compliance Demonstration
- 2-22 40CFR 60.42c(d), NSPS Subpart Dc: Compliance Demonstration
- 2-23 40CFR 60.42c(h), NSPS Subpart Dc: Exemption from the averaging period.
- 2-24 40CFR 60.43c(c), NSPS Subpart Dc: Compliance Demonstration
- 2-25 40CFR 60.45c(a), NSPS Subpart Dc: Compliance Demonstration
- 2-26 40CFR 60.48c(b), NSPS Subpart Dc: Compliance Demonstration
- 2-27 40CFR 60.48c(e)(11), NSPS Subpart Dc: Compliance Demonstration
- 2-28 40CFR 60.48c(f)(1), NSPS Subpart Dc: Compliance Demonstration
- 2-29 40CFR 60.48c(g), NSPS Subpart Dc: Compliance Demonstration

#### EU=R-GASWH

- 2-30 40CFR 60.48c(i), NSPS Subpart Dc: Compliance Demonstration



**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 2-31 ECL 19-0301: Contaminant List
- 2-32 6 NYCRR 201-1.4: Unavoidable noncompliance and violations
- 51 6 NYCRR Subpart 201-5: General Provisions
- 52 6 NYCRR Subpart 201-5: Emission Unit Definition
- 2-33 6 NYCRR 201-5.4 (b): Compliance Demonstration
- 2-34 6 NYCRR 211.2: Air pollution prohibited

**Emission Unit Level**

- 56 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 57 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

**EU=H-BOILR**

- 2-35 6 NYCRR 201-5.3 (b): Compliance Demonstration

NOTE: \* preceding the condition number indicates capping.



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

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: Sealing - 6 NYCRR 200.5**

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

**Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6**

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

**Item C: Maintenance of Equipment - 6 NYCRR 200.7**

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



required to operate such device effectively.

**Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2**

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

- (a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.
- (b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

**Item E: Emergency Defense - 6 NYCRR 201-1.5**

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

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

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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



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

**Item F: Recycling and Salvage - 6 NYCRR 201-1.7**

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

**Item G: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8**

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

**Item H: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)**

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

**Item I: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)**

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

**Item J: Required Emission Tests - 6 NYCRR 202-1.1**



An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

**Item K: Visible Emissions Limited - 6 NYCRR 211.3**

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.

**Item L: Open Fires - 6 NYCRR Part 215**

No person shall burn, cause, suffer, allow or permit the burning in an open fire of garbage, rubbish for salvage, or rubbish generated by industrial or commercial activities.

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

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



requirements as being enforceable under only state regulations.

**FEDERAL APPLICABLE REQUIREMENTS**  
**The following conditions are federally enforceable.**

**Condition 2-1: Recycling and Emissions Reduction**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 82, Subpart F**

**Replaces Condition(s) 22**

**Item 2-1.1:**

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

**Condition 2-2: Exempt Activities - Maintenance of Control Equipment**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:6 NYCRR 201-3.2 (b)**

**Item 2-2.1:**

Owner of any emission source or unit that is listed as eligible to be exempt in 6 NYCRR Part 201-3.2(c), on the basis of the use of appropriate emission control device shall operate and maintain such device in a manner consistent with good engineering practices.

**Condition 2-3: Trivial Activities - Maintenance of Control Equipment**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:6 NYCRR 201-3.3 (b)**

**Item 2-3.1:**

The owner and /or operator of any emission source or unit that is listed as eligible to be trivial in 6 NYCRR Part 201-3.3(c), on the basis of the use of appropriate emission control device shall operate and maintain such device in a manner consistent with good engineering practices.

**Condition 17: Compliance Demonstration**  
**Effective between the dates of 04/04/2000 and Permit Expiration Date**

**Applicable Federal Requirement:6 NYCRR 225-1.8 (a)**

**Item 17.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 17.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The permittee shall retain fuel oil supplier



certifications for each shipment of oil received. Such certifications shall contain, as a minimum: supplier name, date of shipment, quantity shipped, a statement indicating that the oil sulfur content is less than the specified limit listed in the permit (0.5%), and a statement certifying that the oil meets the ASTM standards for distillate oil. Such certifications shall be available for inspection by, or submittal to, NYSDEC upon request.

Monitoring Frequency: PER DELIVERY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-4: Corrective Action**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:6 NYCRR 227-1.6**

**Item 2-4.1:**

(a) Any person found to have violated any provision of this Part shall not cause, permit or allow operation of the stationary combustion installation involved in the violation unless:

- (1) it is equipped with approved emission control equipment;
- (2) it is rehabilitated or upgraded in an approved manner; or
- (3) the fuel is changed to an acceptable type.

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

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

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

**Condition 2-5: EPA Region 2 address.**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.4, NSPS Subpart A**

**Item 2-5.1:**

All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the following address:

Director, Division of Enforcement and Compliance Assistance  
USEPA Region 2  
290 Broadway, 21st Floor  
New York, NY 10007-1886



**New York State Department of Environmental Conservation**

Permit ID: 4-4224-00024/00039

Facility DEC ID: 4422400024



Copies of all correspondence to the administrator pursuant to this part shall also be submitted to the NYSDEC Regional Office issuing this permit (see address at the beginning of this permit) and to the following address:

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

**Condition 2-6: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

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

**Item 2-6.1:**

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

Emission Unit: H-BOILR

**Item 2-6.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-7: Demolition and Renovation**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 61.145, NESHAP Subpart M**

**Item 2-7.1: The permittee shall comply with applicable requirements of the National Emissions Standards for Asbestos specified in 40 CFR 61, Subpart M, and provide to the administrator or other governing agency reports as required.**

Notification requirements: The permittee shall provide the USEPA Administrator with written notice of the intention to demolish or renovate as outlined in 40 CFR 61.145(b).

The permittee shall comply with all applicable procedures for removal of RACM in 40 CFR 61.145(c).

**Condition 2-8: Halon Emissions Reduction**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**



**Applicable Federal Requirement:40CFR 82, Subpart H**

**Item 2-8.1:**

The permittee shall comply with the standards for halon emissions reduction pursuant to 40CFR Part 82, Subpart H.

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

**Condition 2-9: Emission Unit Permissible Emissions**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 2-9.1:**

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

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

Emission Unit: H-BOILR

CAS No: 000630080 (From Mod 2)

Name: CARBON MONOXIDE

PTE(s): 13,370 pounds per year

CAS No: 007446095 (From Mod 2)

Name: SULFUR DIOXIDE

PTE(s): 82,360 pounds per year

**Condition 2-10: Capping Monitoring Condition**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 2-10.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

**Item 2-10.2:**

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

**Item 2-10.3:**

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any



other state and federal air pollution control requirements, regulations or law.

**Item 2-10.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 2-10.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 2-10.6:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 2-10.7:**

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Calculate total heat content burned, based on fuel used, and annually report cap certification. A heat factor of 1,020 BTU/ cu ft for natural gas and 140,000 BTU/gallon for fuel oil will be used. The calculation that will be used is: (cu ft of natural gas)(1,020 BTU/cu ft) + (gallons of fuel oil)(140,000 BTU/gallon) = Heat content in BTU.

An interim capping report shall be submitted to the Department by May 3, 2010 and shall cover the period from April 4, 2009 to April 3, 2010. The first full capping report under this permit shall include information from the first working day of September 2009 to the first working day of September 2010. Subsequent capping reports shall include information for the period, which runs from the first working day in September to the first working day in September of the following year and be repeated for each subsequent year, with submittal to the Department due by September 30 of each year.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

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Parameter Monitored: HEAT CONTENT  
Upper Permit Limit: 162400000000 British thermal units  
Monitoring Frequency: MONTHLY  
Averaging Method: ANNUAL TOTAL ROLLED MONTHLY  
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 30: Compliance Demonstration**  
**Effective between the dates of 04/04/2000 and Permit Expiration Date**

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

**Item 30.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

**Item 30.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

No owner or operator of a combustion installation shall 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.

Monitoring of opacity shall be performed upon request of the regulatory agency.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Reference Test Method: Method 9  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)  
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-11: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60, NSPS Subpart A**

**Item 2-11.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

**Item 2-11.2:**

Compliance Demonstration shall include the following monitoring:

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Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 2-12: Enforceability.**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.42c(i), NSPS Subpart Dc**

**Item 2-12.1:**

This Condition applies to Emission Unit: H-BOILR

**Item 2-12.2:**

The sulfur dioxide emission limits, percentage reductions, and fuel oil sulfur limitations shall apply at all times, including periods of startup, shutdown, and malfunction.

**Condition 2-13: Alternative compliance methods for sulfur dioxide.**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.44c(h), NSPS Subpart Dc**

**Item 2-13.1:**

This Condition applies to Emission Unit: H-BOILR

**Item 2-13.2:**

Facilities demonstrating compliance through vendor certification shall follow the compliance procedures listed in paragraphs 40 CFR 60-Dc.48c(f)(1), (2), or (3), as applicable.

**Condition 2-14: Compliance Demonstration**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.46c(d)(2), NSPS Subpart Dc**

**Item 2-14.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR



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

**Item 2-14.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Under 40 CFR 60.46c(2) averaging of fuel oil sulfur values is allowed over a rolling thirty (30) day period such that the average sulfur content is 0.5% by weight or less. Approved alternative operating scenarios to 40 CFR 60.46c(2) in the event that chemical analysis indicates that the sulfur content of the fuel oil in storage contains greater than 0.5% sulfur are as follows:

1) Burn the higher sulfur content fuel oil provided the following can be met:

- \* A 30-day rolling average, which includes the contribution from the combustion of natural gas from the emission unit, demonstrates that the average emissions for the period do not exceed the sulfur dioxide emissions that would have occurred if distillate oil with a sulfur content of 0.5% by weight was combusted.

- \* The 30-day rolling average sulfur dioxide emissions are calculated by:

- a) Determining the quantity of fuel (both natural gas and fuel oil) combusted during the 30-day period from the daily fuel usage readings for the emission unit.

- b) Determining the sulfur emissions for each fuel by multiplying the quantity of each fuel by the appropriate AP-42 emission factors for sulfur dioxide. The AP-42 emission factor for the higher sulfur content oil would be adjusted for its analytically determined sulfur content.

- c) Determining the total heat content of the fuel burned during this 30-day period and converting it to an equivalent volume by the AP-42 emission factor for oil with a sulfur content of 0.5% by weight.

- d) Determining the idealized sulfur emission for this equivalent volume of Number 2 fuel oil by multiplying this volume by the AP-42 emission factor for oil with a sulfur content of 0.5% by weight.

Or,

2) Blend the high sulfur oil with either low sulfur Number 2 or Number 1 Distillate Oil in the storage tank prior to combustion. Analytical results would then be used to demonstrate that the oil meets the sulfur content



limit of 0.5% or less. The Distillate Oil will be considered to meet the analytical requirements of ASTM D-396, as amended, provided the results fall between the highest and lowest allowable values for the oils used in the blending.

Monitoring Frequency: MONTHLY  
Averaging Method: 30-DAY ROLLING AVERAGE  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2010.  
Subsequent reports are due every 6 calendar month(s).

**Condition 2-15: Exemption from sulfur dioxide monitoring requirements.**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.46c(e), NSPS Subpart Dc**

**Item 2-15.1:**

This Condition applies to Emission Unit: H-BOILR

**Item 2-15.2:**

Facilities subject to paragraphs 40 CFR 60-Dc.42c(h)(1), (2), or (3) showing compliance through vendor certification shall be exempt from section 40 CFR 60-Dc.46c.

**Condition 2-16: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

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

**Item 2-16.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

**Item 2-16.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 2-17: Capping Monitoring Condition**



Effective between the dates of 12/07/2009 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR Subpart 201-7

**Item 2-17.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

**Item 2-17.2:**

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

**Item 2-17.3:**

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 2-17.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 2-17.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 2-17.6:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR  
Process: GAS

Regulated Contaminant(s):  
CAS No: 000630-08-0 CARBON MONOXIDE

**Item 2-17.7:**

Compliance Demonstration shall include the following monitoring:

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



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Limit natural gas usage to 159,200,000 standard cubic feet during any 12 month period and report the maximum rolled 12 month fuel usage value in the annual cap certification.

An interim capping report shall be submitted to the Department by May 3, 2010 and shall cover the period from April 4, 2009 to April 3, 2010. The first full capping report under this permit shall include information from the first working day of September 2009 to the first working day of September 2010. Subsequent capping reports shall include information for the period, which runs from the first working day in September to the first working day in September of the following year and be repeated for each subsequent year, with submittal to the Department due by September 30 of each year.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: NATURAL GAS

Upper Permit Limit: 159,200,000 cubic feet

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL TOTAL ROLLED MONTHLY

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 2-18: Compliance Demonstration**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

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

**Item 2-18.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

Process: GAS

**Item 2-18.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility is subject to the requirements of 40 CFR 60.48c(g), the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each calendar month.

Monitoring Frequency: MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2010.

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

**Condition 2-19: Capping Monitoring Condition**



Effective between the dates of 12/07/2009 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR Subpart 201-7

**Item 2-19.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

**Item 2-19.2:**

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

**Item 2-19.3:**

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 2-19.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 2-19.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 2-19.6:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR  
Process: OIL

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

**Item 2-19.7:**

Compliance Demonstration shall include the following monitoring:

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



Limit distillate fuel oil to 1,160,000 gallons during any 12 month period and report the maximum rolled 12 month fuel usage value in the annual cap certification.

An interim capping report shall be submitted to the Department by May 3, 2010 and shall cover the period from April 4, 2009 to April 3, 2010. The first full capping report under this permit shall include information from the first working day of September 2009 to the first working day of September 2010. Subsequent capping reports shall include information for the period, which runs from the first working day in September to the first working day in September of the following year and be repeated for each subsequent year, with submittal to the Department due by September 30 of each year.

Work Practice Type: PROCESS MATERIAL THRUPUT  
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL  
Upper Permit Limit: 1,160,000 gallons  
Monitoring Frequency: MONTHLY  
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY  
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 2-20: Capping Monitoring Condition**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement: 6 NYCRR Subpart 201-7**

**Item 2-20.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

**Item 2-20.2:**

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

**Item 2-20.3:**

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 2-20.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time

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period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 2-20.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 2-20.6:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR  
Process: OIL

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

**Item 2-20.7:**

Compliance Demonstration shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The emission unit will be restricted to burning low sulfur distillate oil that conforms to the Standard Specification for Fuel Oils per ASTM D-396, as amended, and contains <0.5% sulfur by weight. Compliance demonstration will be by Fuel Oil Supplier's certification statements and when applicable by chemical analysis.

An interim capping report shall be submitted to the Department by May 3, 2010 and shall cover the period from April 4, 2009 to April 3, 2010. The first full capping report under this permit shall include information from the first working day of September 2009 to the first working day of September 2010. Subsequent capping reports shall include information for the period, which runs from the first working day in September to the first working day in September of the following year and be repeated for each subsequent year, with submittal to the Department due by September 30 of each year.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL

Upper Permit Limit: 0.5 percent by weight

Monitoring Frequency: PER DELIVERY

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

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 2-21: Compliance Demonstration**



Effective between the dates of 12/07/2009 and Permit Expiration Date

Applicable Federal Requirement:6 NYCRR 227-1.3

Replaces Condition(s) 29

**Item 2-21.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

Process: OIL

**Item 2-21.2:**

Compliance Demonstration 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). Boilers are not required to be operated on fuel oil into the daylight hours solely to obtain this reading if conditions warrant securing the boilers or switching fuel to natural gas.

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: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-22: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.42c(d), NSPS Subpart Dc**

**Item 2-22.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR  
Process: OIL

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

**Item 2-22.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

On or after the date on which the initial performance test is completed under Section 60.8 of this part, no owner or operator of an affected facility that combusts oil shall combust oil with a sulfur content in excess of 0.5% by weight or as allowed by the averaging provisions of the alternative operating scenario under the operational flexibility provisions of this permit.

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Compliance with this condition will also satisfy the requirements of 6 NYCRR 225-1.2(a)(2).

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL  
Parameter Monitored: SULFUR CONTENT  
Upper Permit Limit: 0.5 percent by weight  
Monitoring Frequency: PER DELIVERY  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY  
TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2010.  
Subsequent reports are due every 6 calendar month(s).

**Condition 2-23: Exemption from the averaging period.**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.42c(h), NSPS Subpart Dc**

**Item 2-23.1:**

This Condition applies to Emission Unit: H-BOILR  
Process: OIL

**Item 2-23.2:**

Compliance with emission limits and/or fuel oil sulfur limitations shall be based on a certification from the fuel supplier as stated in paragraph 40 CFR 60-Dc.48c(f)(1), (2), or (3) as applicable.

**Condition 2-24: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.43c(c), NSPS Subpart Dc**

**Item 2-24.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR  
Process: OIL

**Item 2-24.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

On or after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8 of this part, whichever comes first, no owner or operator of an affected facility that combusts coal,

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wood, or oil and has a heat input capacity of 30 million BTU/hr or greater shall cause to be discharged into the atmosphere from an affected facility any gases that exhibit greater than 20 percent opacity (6 minute average).

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: METHOD 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-25: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.45c(a), NSPS Subpart Dc**

**Item 2-25.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

Process: OIL

**Item 2-25.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The owner or operator of an affected facility subject to the PM and/or opacity standards under 40 CFR 60.43c shall conduct an initial performance test as required under 40 CFR 60.8 and shall conduct subsequent performance test as requested by the Administrator to determine compliance with the standards using the following procedures and reference methods. Method 9 (6 minute average of 24 observations) shall be used for determining the opacity of stack emissions.

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: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 2-26: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

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



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**Item 2-26.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

Process: OIL

**Item 2-26.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The owner or operator of an affected facility subject to the sulfur dioxide emission limits of 40 CFR 60.42c, or the PM and/or opacity standards under 40 CFR 60.43c shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and if applicable, the performance evaluation of the CEMS using the applicable performance specification in Appendix B.

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: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 2-27: Compliance Demonstration**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement: 40CFR 60.48c(e)(11), NSPS Subpart Dc**

**Item 2-27.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

Process: OIL

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 2-27.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records as required under §60.48c(d) including the following information.

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If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph §60.48c(f)(1)(2) or (3). In addition to records of fuel supplier certification, the semi-annual report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the period.

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 1/30/2010.

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

**Condition 2-28: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60.48c(f)(1), NSPS Subpart Dc**

**Item 2-28.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

Process: OIL

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 2-28.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Fuel supplier certification shall include the following information for distillate oil:

- (i) The name of the fuel oil supplier;
- (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in CFR 60.41c; and
- (iii) The sulfur content or maximum sulfur content of the oil.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-29: Compliance Demonstration**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**



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

**Item 2-29.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR  
Process: OIL

**Item 2-29.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility is subject to the requirements of 40 CFR 60.48c(g), the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each calendar month.

Monitoring Frequency: MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2010.

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

**Condition 2-30: Compliance Demonstration**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

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

**Item 2-30.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: R-GASWH

**Item 2-30.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



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

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**  
**This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability**

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

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

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

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**STATE ONLY APPLICABLE REQUIREMENTS**  
**The following conditions are state only enforceable.**



**Condition 2-31: Contaminant List**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable State Requirement:ECL 19-0301**

**Item 2-31.1:**

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

CAS No: 000630-08-0  
Name: CARBON MONOXIDE

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

**Condition 2-32: Unavoidable noncompliance and violations**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable State Requirement:6 NYCRR 201-1.4**

**Item 2-32.1:**

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

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

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superceded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those



above.

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

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

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

**Condition 51: General Provisions**  
**Effective between the dates of 04/04/2000 and Permit Expiration Date**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 51.1:**

This section contains terms and conditions that are not federally enforceable and are not required under the Act or under any of its applicable requirements. Terms and conditions so designated are not subject to the requirements of Section 201-6.4 of Part 201.

**Item 51.2:**

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.

**Item 51.3:**

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Condition 52: Emission Unit Definition**  
**Effective between the dates of 04/04/2000 and Permit Expiration Date**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 52.1(From Mod 2):**

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



Emission Unit Description:

The K2 boiler house contains three (3) JBC Firetube boilers (BOIL1, BOIL2, BOIL3) to provide steam for comfort heating at the Knolls Site. The boilers were designed with low NOx burners and packaged with a flue gas recirculation system (FGR). The FGR will be utilized as required to attain low NOx emission levels. The heating boilers are rated at 30.41 million BTUS/HR each when combusting natural gas and 29.26 million BTUS/HR when firing distillate oil. Natural gas is the primary fuel and distillate oil is used as a back-up fuel. Each boiler has its own exhaust stack. The FGR system will be utilized as required based upon data obtained during boiler tune ups.

Building(s): K2

**Item 52.2(From Mod 2):**

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

Emission Unit: R-GASWH

Emission Unit Description:

Two (2) Zwick Energy Research (ZER) natural gas fired water heater rated at 15.1 and 14.7 million BTUs/hr heat input capacity. The water heaters are used to heat water for Research & Development work at a Experimental Engineering test facility. The exhaust from these heaters is vented through a common stack. Total thruput is based on maximum design hourly heat input capacity for both units and dividing the total by the AP-42 heat content factor for natural gas (1020 BTUs/SCF). SCF is standard cubic feet. The water heaters fuel usage and emissions are not capped. The quantity per year thruput 255,929,412 SCF (rounded to 255,930,000) is based on the maximum potential to emit (24 hours/day - 365 days/year).

Building(s): L3

**Condition 2-33: Compliance Demonstration**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

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

**Item 2-33.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 2-33.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Generic Operational Flexibility  
Condition



## Operational Flexibility Plan

### I. Protocol Objective

The objective of this condition is to maximize operational flexibility at the facility by building into the Title V Permit the capability to make certain changes using a protocol. As provided under 6 NYCRR Part 201-6.5(f)(2), changes made under an approved protocol are not subject to the Title V permit modification provisions under 6 NYCRR Part 201-6.7.

### II. Protocol

#### A. Criteria

1. Changes reviewed under this protocol in shall be evaluated in accordance with the following criteria:
  - a. All underlying federal and state requirements with which the new or changed emission source must comply must exist in the Title V permit. Existing permit conditions may be amended to reference or include the new or changed emission source and any related information, and/or, subject to DEC approval, new conditions proposed, to provide the appropriate monitoring parameters.
  - b. Any new or changed emission source shall not be part of a source project that results in a significant net emissions increase that exceeds the NSR thresholds identified in 6 NYCRR Part 231-2 or 40 CFR 52.21
  - c. The facility shall not use the protocol to make physical changes or changes in the method of operation of existing emission sources that would require a new or modified federally enforceable cap either to avoid major New Source Review requirements or to address and comply with other





Clean Air Act requirements such as RACT. Such changes must be addressed via the significant permit modification provisions.

**B. Notification Requirements for Changes Reviewed under Protocol**

1. The facility shall notify the Department in writing of the proposed change.

2. Notifications made in accordance with this protocol will include the following documentation:

a. Identification of the Title V permit emission unit, process(es), emission sources, and emission points affected by the proposed change with applicable revisions to the Emission Unit structure;

b. Description of the proposed change, including operating parameters;

c. Identification and description of emissions control technology;

d. Documentation of the project's or emission source's compliance with respect to all state and/or federally applicable requirements, including the following steps:

i. Calculate the emission rate potential and maximum projected actual annual emission rates for all contaminants affected by the change.

ii. Submit documentation of major NSR program non-applicability for NYSDEC review and approval.

iii. Identify and evaluate the applicability of all regulations likely to be triggered by the new or changed emission source.

iv. Propose any operating and record keeping procedures necessary to ensure compliance.



e. Any other relevant information used for the evaluation of the proposed project or emission source under the Protocol.

C. Review and Approval of Changes

1. The Department shall respond to the permittee in writing with a determination within 15 days of receipt of the notification from the permittee.

2. The Department may require a permit modification, in order to impose new applicable requirements or additional permit conditions if it determines that changes proposed pursuant to notification do not meet the criteria under III.A or that the change may have a significant air quality impact or be otherwise potentially significant under SEQRA (6NYCRR Part 617).

3. The Department may require that the permittee not undertake the proposed change until it completes a more detailed review of the proposed change, which may include potential air quality impacts and/or applicable requirements. The Department's determination shall include a listing of information required for further review, if necessary.

D. Additional Compliance Obligations for Changes Made Under this Protocol

1. Upon commencement of the change, the facility shall comply with all applicable requirements and permit conditions, including any amended or proposed in accordance with III.A.1.a above.

2. The facility shall provide with the semi-annual monitoring report, a summary of the changes made in accordance with this protocol and a statement of the compliance status of each. Changes reported

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should include all those made during the corresponding period and any earlier changes that have not yet been incorporated into the permit.

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 2-34: Air pollution prohibited**  
**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable State Requirement:6 NYCRR 211.2**

**Replaces Condition(s) 55**

**Item 2-34.1:**

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.

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

**Condition 56: Emission Point Definition By Emission Unit**  
**Effective between the dates of 04/04/2000 and Permit Expiration Date**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 56.1(From Mod 2):**

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

Emission Unit: H-BOILR

Emission Point: 00032

Height (ft.): 52                      Diameter (in.): 26  
NYTMN (km.): 4741.8              NYTME (km.): 592.8              Building: K2

Emission Point: 00033

Height (ft.): 52                      Diameter (in.): 26  
NYTMN (km.): 4741.8              NYTME (km.): 592.8              Building: K2

Emission Point: 00034

Height (ft.): 52                      Diameter (in.): 26  
NYTMN (km.): 4741.8              NYTME (km.): 592.8              Building: K2

**Item 56.2(From Mod 2):**

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

Emission Unit: R-GASWH



Emission Point: 00030  
Height (ft.): 73 Diameter (in.): 42  
NYTMN (km.): 4741.6 NYTME (km.): 592.5 Building: L3

**Condition 57: Process Definition By Emission Unit**  
**Effective between the dates of 04/04/2000 and Permit Expiration Date**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 57.1(From Mod 2):**

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

Emission Unit: H-BOILR  
Process: GAS Source Classification Code: 1-02-006-02  
Process Description:

The three (3) JBC firetube boilers (BOIL1, BOIL2, BOIL3) burn natural gas as their primary fuel. The boiler's hourly design heat input capacity when combusting natural gas is 30.41 million BTUs/HR per boiler. This equates to 29,813.7 standard cubic feet (SCF) of natural gas combusted per hour per boiler (maximum design capacity). The total thruput data 87,441 SCF (quantity/HR) below is based on operating three boilers at their maximum design capacity. The quantity per year is derived from the fuel usage for natural gas. Total days of operation is not provided, since the fuel cap is more restrictive.

Emission Source/Control: BLR1G - Combustion  
Design Capacity: 30.41 million Btu per hour

Emission Source/Control: BLR2G - Combustion  
Design Capacity: 30.41 million Btu per hour

Emission Source/Control: BLR3G - Combustion  
Design Capacity: 30.41 million Btu per hour

**Item 57.2(From Mod 2):**

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

Emission Unit: H-BOILR  
Process: OIL Source Classification Code: 1-02-005-02  
Process Description:

The three (3) JBC firetube boilers (BOIL1, BOIL2, BOIL3) burn distillate oil as a back-up fuel. The boiler's hourly design that input capacity when combusting distillate oil is 29.26 million BTUs/HR per boiler. This equates to the combusting of 209 gallons per hour distillate oil per boiler (maximum design capacity). The total thruput data 627 gallons (quantity/HR) below is based on operating three boilers at their maximum design capacity. The quantity per year is derived from the fuel usage cap for the combustion of distillate oil. Total

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days of operation is not provided, since the fuel usage cap is more restrictive.

Emission Source/Control: BLR10 - Combustion  
Design Capacity: 29.26 million Btu per hour

Emission Source/Control: BLR20 - Combustion  
Design Capacity: 29.26 million Btu per hour

Emission Source/Control: BLR30 - Combustion  
Design Capacity: 29.26 million Btu per hour

**Item 57.3(From Mod 2):**

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

Emission Unit: R-GASWH

Process: GWH

Source Classification Code: 1-02-006-02

Process Description:

Two (2) Zwick Energy Research (ZER) natural gas fired water heater rated at 15.1 and 14.7 million BTUs/HR heat input capacity. The water heaters are used to heat water for research & development work at an experimental engineering test facility. The exhaust from these heaters is vented through a common stack. Total thruput is based on maximum design hourly heat input capacity for both units and dividing the total by the AP-42 heat content factor for natural gas (1020 BTUs/SCF). SCF is standard cubic feet. The water heaters fuel usage and emissions are not capped. The quantity per year thruput 255,929,412 SCF (rounded to 255,930,000) is based on the maximum potential to emit (24 hours/day - 365 days/year).

Emission Source/Control: GSWHE - Combustion  
Design Capacity: 15.1 million Btu per hour

Emission Source/Control: GSWHW - Combustion  
Design Capacity: 14.7 million Btu per hour

**Condition 2-35: Compliance Demonstration**

**Effective between the dates of 12/07/2009 and Permit Expiration Date**

**Applicable State Requirement:6 NYCRR 201-5.3 (b)**

**Item 2-35.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: H-BOILR

**Item 2-35.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

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**Monitoring Description:**

A boiler tune-up shall be performed annually. The owner or operator of a small boiler shall maintain in a log (in the format acceptable to the Department) containing the following information: (1) The date which the equipment was adjusted; and (2) The name, title, and affiliation of the person who adjusted the equipment.

**Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION**

**Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY**

