

# ALLEGHENY COUNTY HEALTH DEPARTMENT



AIR QUALITY PROGRAM  
301 39th Street, Bldg. #7  
Pittsburgh, PA 15201-1891

## Major Source Title V Operating Permit

Issued To: Supervising Committee of the  
Bellefield Boiler Plant

ACHD Permit #: 0047


Facility: Bellefield Boiler Plant  
4400 Forbes Avenue  
Pittsburgh, PA 15213-4080

Date of Issuance: December 18, 2013

Expiration Date: December 17, 2018

Renewal Date: June 18, 2018

Issued By:

  
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Sandra L. Etzel  
Air Pollution Control Mgr.

Prepared By:

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Air Quality Engineer

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**AMENDMENTS:**DATE:           SECTION:  

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**I. CONTACT INFORMATION**

**Facility Location:** **Bellefield Boiler Plant**  
4400 Forbes Avenue  
Pittsburgh, PA 15213-4080

**Permittee/Owner:** **Supervising Committee of the  
Bellefield Boiler Plant**  
4400 Forbes Avenue  
Pittsburgh, PA 15213-4080

**Responsible Official:** **Kevin D. Hiles**  
**Title:** Chairman  
**Company:** Supervising Committee of the  
Bellefield Boiler Plant  
**Address:** 4400 Forbes Avenue  
Pittsburgh, PA 15213-4080  
**Telephone Number:** 412-622-3351  
**Fax Number:** 412-622-1922

**Facility Contact:** **Robert H. Miller**  
**Title:** Superintendent  
**Telephone Number:** 412-622-3354  
**Fax Number:** 412-622-1931

**AGENCY ADDRESSES:**

**ACHD Engineer:** **Hafeez A. Ajenifuja**  
**Title:** Air Quality Engineer  
**Telephone Number:** 412-578-8132  
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**E-mail Address:** [hajenifuja@achd.net](mailto:hajenifuja@achd.net)

**ACHD Contact:** **Chief Engineer**  
**Allegheny County Health Department**  
Air Quality Program  
301 39th Street, Building #7  
Pittsburgh, PA 15201-1891

**EPA Contact:** **Enforcement Programs Section (3AP12)**  
**USEPA Region III**  
1650 Arch Street  
Philadelphia, PA 19103-2029

**II. FACILITY DESCRIPTION**

The Bellefield Boiler Plant, is a captive steam generation facility located on S. Neville Street in the Oakland section of Pittsburgh, PA and it supplies steam for heating to institutional sites in that area. The plant is composed of six (6) boilers emitting from one stack. All of the boilers fire natural gas as their primary fuel. The boilers have the capacity to fire no. 2 fuel oil with sulfur content of 0.05% (500 ppm) at times of emergency, including natural gas curtailment and natural gas supply interruption, and during maintenance, periodic testing and startups with the exception of boilers 1, 5 and 8a, which do not have the capability to fire fuel oil. Boilers 3, 6 and 7 emergency fuel oil usage will be based on 500 hours/year. The facility also has two (2) oil fired emergency generators rated at 771 hp (5.4 MMBtu/hr) each.

This is a Title V renewal. The original operating permit was issued on August 31, 2004. The facility is a major source of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide emissions (CO), a minor source of particulate matter (PM), particulate matter < 10 microns in diameter. (PM-10), sulfur oxide (SO<sub>x</sub>), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) as defined in section 2101.20 of Article XXI.

The emission units regulated by this permit are summarized in Table II-1:

**TABLE II-1 - Emission Unit Identification**

<b>I.D.</b>	<b>SOURCE DESCRIPTION</b>	<b>CONTROL DEVICE(S)</b>	<b>MAXIMUM CAPACITY</b>	<b>FUEL/RAW MATERIAL</b>	<b>STACK I.D.</b>
B001	Boiler 1	None	74 MMBtu/Hr	Natural Gas	S002
B003	Boiler 3	None	119 (fuel oil); 128 (natural gas) MMBtu/Hr	Natural Gas/ No. 2 Fuel Oil	S002
B005	Boiler 5	None	74 MMBtu/Hr	Natural Gas	S002
B006	Boiler 6, Package Boiler	Flue Gas Recirculation	179 MMBtu/Hr	Natural Gas/ No. 2 Fuel Oil	S002
B007	Boiler 7, Package Boiler	Low NO <sub>x</sub> Burners	188 MMBtu/Hr	Natural Gas/ No. 2 Fuel Oil	S002
B008a	Boiler 8a, Package Boiler	Low NO <sub>x</sub> Burners with Optional Flue Gas Recirculation	87 MMBtu/Hr	Natural Gas	S002
EG-A & B	Two (2) Emergency Generators A & B	None	771 HP (5.4 MMBtu/hr) each	Diesel	EG-A & B Stacks

### ***DECLARATION OF POLICY***

*Pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Accordingly, pollution prevention measures should be integrated into air pollution control programs wherever possible, and the adoption by sources of cost-effective compliance strategies, incorporating pollution prevention, is encouraged. The Department will give expedited consideration to any permit modification request based on pollution prevention principles.*

**The permittee is subject to the terms and conditions set forth below. These terms and conditions constitute provisions of Allegheny County Health Department Rules and Regulations, Article XXI Air Pollution Control. The subject equipment has been conditionally approved for operation. The equipment shall be operated in conformity with the plans, specifications, conditions, and instructions which are part of your application, and may be periodically inspected for compliance by the Department. In the event that the terms and conditions of this permit or the applicable provisions of Article XXI conflict with the application for this permit, these terms and conditions and the applicable provisions of Article XXI shall prevail. Additionally, nothing in this permit relieves the permittee from the obligation to comply with all applicable Federal, State and Local laws and regulations.**

### **III. GENERAL CONDITIONS - Major Source**

#### **1. Prohibition of Air Pollution (§2101.11)**

It shall be a violation of this permit to fail to comply with, or to cause or assist in the violation of, any requirement of this permit, or any order or permit issued pursuant to authority granted by Article XXI. The permittee shall not willfully, negligently, or through the failure to provide and operate necessary control equipment or to take necessary precautions, operate any source of air contaminants in such manner that emissions from such source:

- a. Exceed the amounts permitted by this permit or by any order or permit issued pursuant to Article XXI;
- b. Cause an exceedance of the ambient air quality standards established by Article XXI §2101.10; or
- c. May reasonably be anticipated to endanger the public health, safety, or welfare.

#### **2. Definitions (§2101.20)**

- a. Except as specifically provided in this permit, terms used retain the meaning accorded them under the applicable provisions and requirements of Article XXI. Whenever used in this permit, or in any action taken pursuant to this permit, the words and phrases shall have the meanings stated, unless the context clearly indicates otherwise.
- b. Unless specified otherwise in this permit or in the applicable regulation, the term “year” shall mean any twelve (12) consecutive months.
- c. “RACT Order No. 248” shall be defined as Enforcement Order No. 248, dated December 19, 1996.

**3. Conditions (§2102.03.c)**

It shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02, for any person to fail to comply with any terms or conditions set forth in this permit.

**4. Certification (§2102.01)**

Any report or compliance certification submitted under this permit shall contain written certification by a responsible official as to truth, accuracy, and completeness. This certification and any other certification required under this permit shall be signed by a responsible official of the source, and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**5. Transfers (§2102.03.e)**

This permit shall not be transferrable from one person to another, except in accordance with Article XXI §2102.03.e and in cases of change-in-ownership which are documented to the satisfaction of the Department, and shall be valid only for the specific sources and equipment for which this permit was issued. The transfer of permits in the case of change-in-ownership may be made consistent with the administrative permit amendment procedure of Article XXI §2103.14.b The required documentation and fee must be received by the Department at least 30 days before the intended transfer date.

**6. Term (§2103.12.e, §2103.13.a)**

- a. This permit shall remain valid for five (5) years from the date of issuance, or such other shorter period if required by the Clean Air Act, unless revoked. The terms and conditions of an expired permit shall automatically continue pending issuance of a new operating permit provided the permittee has submitted a timely and complete application and paid applicable fees required under Article XXI Part C, and the Department through no fault of the permittee is unable to issue or deny a new permit before the expiration of the previous permit.
- b. Expiration. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with the requirements of Article XXI Part C.

**7. Need to Halt or Reduce Activity Not a Defense (§2103.12.f.2)**

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

**8. Property Rights (§2103.12.f.4)**

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

**9. Duty to Provide Information (§2103.12.f.5)**

- a. The permittee shall furnish to the Department in writing within a reasonable time, any information that the Department may request 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 any records required to

be kept by the permit.

- b. Upon cause shown by the permittee the records, reports, or information, or a particular portion thereof, claimed by the permittee to be confidential shall be submitted to the Department in accordance with the requirements of Article XXI, §2101.07.d.4. Information submitted to the Department under a claim of confidentiality, shall be available to the US EPA and the PADEP upon request and without restriction. Upon request of the permittee the confidential information may be submitted to the USEPA and PADEP directly. Emission data or any portions of any draft, proposed, or issued permits shall not be considered confidential.

**10. Modification of Section 112(b) Pollutants which are VOCs or PM<sub>10</sub> (§2103.12.f.7)**

Except where precluded under the Clean Air Act or federal regulations promulgated under the Clean Air Act, if this permit limits the emissions of VOCs or PM<sub>10</sub> but does not limit the emissions of any hazardous air pollutants, the mixture of hazardous air pollutants which are VOCs or PM<sub>10</sub> can be modified so long as no permit emission limitations are violated. A log of all mixtures and changes shall be kept and reported to the Department with the next report required after each change.

**11. Right to Access (§2103.12.h.2)**

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized Department and other federal, state, county, and local government representatives to:

- a. Enter upon the permittee's premises where a permitted source is located or an emissions-related activity is conducted, or where records are or should be kept under the conditions of the permit;
- b. Have access to, copy and remove, at reasonable times, any records that must be kept under the conditions of the permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. As authorized by either Article XXI or the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

**12. Certification of Compliance (§2103.12.h.5, §2103.22.i.1)**

- a. The permittee shall submit on an annual basis, certification of compliance with all terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification of compliance shall be made consistent with General Condition 4 above and shall include the following information at a minimum:
  - 1) The identification of each term or condition of the permit that is the basis of the certification;
  - 2) The compliance status;
  - 3) Whether any noncompliance was continuous or intermittent;
  - 4) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the provisions of this permit; and
  - 5) Such other facts as the Department may require to determine the compliance status of the source.

- b. All certifications of compliance must be submitted to the Administrator as well as the Department by May 30 of each year for the time period beginning April 1 of the previous year and ending March 31 of the same year. The first report shall be due May 30, 2014 for the time period beginning on the issuance date of this permit through March 31, 2014.

### 13. Record Keeping Requirements (§2103.12.j.1)

- a. The permittee shall maintain records of required monitoring information that include the following:
  - 1) The date, place as defined in the permit, and time of sampling or measurements;
  - 2) The date(s) analyses were performed;
  - 3) The company or entity that performed the analyses;
  - 4) The analytical techniques or methods used;
  - 5) The results of such analyses; and
  - 6) The operating parameters existing at the time of sampling or measurement.
- b. The permittee shall maintain and make available to the Department, upon request, records including computerized records that may be necessary to comply with the reporting and emission statements in Article XXI §2108.01.e. Such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

### 14. Retention of Records (§2103.12.j.2)

The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

### 15. Reporting Requirements (§2103.12.k)

- a. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the Responsible Official.
- b. Prompt reporting of deviations from permit requirements is required, including those attributable to upset conditions as defined in this permit and Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.
- c. All reports submitted to the Department shall comply with the certification requirements of General Condition 4 above.
- d. Semiannual reports required by this permit shall be submitted to the Department as follows:
  - 1) One semiannual report is due by April 30 of each year for the time period beginning October 1 of the previous year through March 31 of that same year.
  - 2) One semiannual report is due by October 31 of each year for the time period beginning April 1 and ending September 30 of that same year.



- 3) The first semiannual report shall be due April 30, 2014 for the time period beginning on the issuance date of this permit through March 31, 2014.

**16. Severability Requirement (§2103.12.1)**

The provisions of this permit are severable, and if any provision of this permit is determined by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

**17. Existing Source Reactivations (§2103.13.d)**

The permittee shall not reactivate any source that has been out of operation or production for a period of one year or more unless the permittee has submitted a reactivation plan request to, and received a written reactivation plan approval from, the Department. Existing source reactivations shall meet all requirements of Article XXI §2103.13.d.

**18. Administrative Permit Amendment Procedures (§2103.14.b, §2103.24.b)**

An administrative permit amendment may be made consistent with the procedures of Article XXI §2103.14.b and §2103.24.b. Administrative permit amendments are not authorized for any amendment precluded by the Clean Air Act or the regulations thereunder.

**19. Revisions and Minor Permit Modification Procedures (§2103.14.c, §2103.24.a)**

Sources may apply for revisions and minor permit modifications on an expedited basis in accordance with Article XXI §2103.14.c and §2103.24.a.

**20. Significant Permit Modifications (§2103.14.d)**

Significant permit modifications shall meet all requirements of the applicable subparts of Article XXI, Part C, including those for applications, fees, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal. The approval of a significant permit modification, if the entire permit has been reopened for review, shall commence a new full five (5) year permit term. The Department shall take final action on all such permits within nine (9) months following receipt of a complete application.

**21. Duty to Comply (§2103.12.f.1, §2103.22.g)**

The permittee shall comply with all permit conditions and all other applicable requirements at all times. Any permit noncompliance constitutes a violation of the Clean Air Act, the Air Pollution Control Act, and Article XXI and is grounds for any and all enforcement action, including, but not limited to, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

**22. Renewals (§2103.13.b., §2103.23.a)**

Renewal of this permit is subject to the same fees and procedural requirements, including those for public participation and affected State and EPA review that apply to initial permit issuance. The application for renewal shall be submitted at least six (6) months but not more than eighteen (18) months prior to expiration of this permit. The application shall also include submission of a supplemental compliance review as required by Article XXI §2102.01.

**23. Reopenings for Cause (§2103.15, §2103.25.a, §2103.12.f.3)**

- a. This permit shall be reopened and reissued under any of the following circumstances:
- 1) Additional requirements under the Clean Air Act become applicable to a major source with a remaining permit term of three (3) or more years. 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 solely due to the failure of the Department to act on a permit renewal application in a timely fashion.
  - 2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.
  - 3) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
  - 4) The Administrator or the Department determines that this permit must be reissued or revoked to assure compliance with the applicable requirements.
- b. This permit may be modified; revoked, reopened, and reissued; or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in this permit.

**24. Reopenings for Cause by the EPA (§2103.25.b)**

This permit may be modified, reopened and reissued, revoked or terminated for cause by the EPA in accordance with procedures specified in Article XXI §2103.25.b.

**25. Annual Operating Permit Administration Fee (§2103.40)**

In each year during the term of this permit, on or before the last day of the month in which the application for this permit was submitted, the permittee shall submit to the Department, in addition to any other applicable administration fees, an Annual Operating Permit Administration Fee in accordance with §2103.40. by check or money order payable to the "Allegheny County Air Pollution Control Fund" in the amount specified in the fee schedule applicable at that time.

**26. Annual Major Source Emissions Fees Requirements (§2103.41)**

No later than September 1 of each year, the permittee shall pay an annual emission fee in accordance with Article XXI §2103.41 for each ton of a regulated pollutant (except for carbon monoxide) actually emitted from the source. The permittee shall not be required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant. The emission fee shall be increased in each year after 1995 by the percentage, if any, by which the Consumer Price Index for the most recent calendar year exceeds the Consumer Price Index for the previous calendar year.

**27. Other Requirements not Affected (§2104.08, §2105.02)**

Compliance with the requirements of this permit shall not in any manner relieve any person from the duty to fully comply with any other applicable Federal, State, or County statute, rule, regulation, or the like, including but not limited to the odor emission standards under Article XXI §2104.04, any applicable NSPSs, NESHAPs, MACTs, or Generally Achievable Control Technology (GACT) standards now or hereafter established by the EPA, and any applicable requirements of BACT or LAER as provided by Article XXI, any condition contained in any applicable Installation or Operating Permit and/or any additional or more stringent requirements contained in an order issued to such person pursuant to Article XXI Part I.

**28. Termination of Operation (§2108.01.a)**

In the event that operation of any source of air contaminants is permanently terminated, the person responsible for such source shall so report, in writing, to the Department within 60 days of such termination.

**29. Emissions Inventory Statements (§2108.01.e & g)**

- a. Emissions inventory statements in accordance with Article XXI §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.
- b. The failure to submit any report or update within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

**30. Tests by the Department (§2108.02.d)**

Notwithstanding any tests conducted pursuant to Article XXI §2108.02, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.

**31. Other Rights and Remedies Preserved (§2109.02.b)**

Nothing in this permit shall be construed as impairing any right or remedy now existing or hereafter created in equity, common law or statutory law with respect to air pollution, nor shall any court be deprived of such jurisdiction for the reason that such air pollution constitutes a violation of this permit.

**32. Enforcement and Emergency Orders (§2109.03, §2109.05)**

- a. The person responsible for this source shall be subject to any and all enforcement and emergency orders issued to it by the Department in accordance with Article XXI §2109.03, §2109.04 and §2109.05.

- b. Upon request, any person aggrieved by an Enforcement Order or Emergency Order shall be granted a hearing as provided by Article XXI §2109.03.d; provided however, that an Emergency Order shall continue in full force and effect notwithstanding the pendency of any such appeal.
- c. Failure to comply with an Enforcement Order or immediately comply with an Emergency Order shall be a violation of this permit thus giving rise to the remedies provided by Article XXI §2109.02.

### 33. Penalties, Fines, and Interest (§2109.07.a)

A source that fails to pay any fee required under this permit when due shall pay a civil penalty of 50% of the fee amount, plus interest on the fee amount computed in accordance with Article XXI §2109.06.a.4 from the date the fee was required to be paid. In addition, the source may have this permit revoked for failure to pay any fee required.

### 34. Appeals (§2109.10)

In accordance with State Law and County regulations and ordinances, any person aggrieved by an order or other final action of the Department issued pursuant to Article XXI or any unsuccessful petitioner to the Administrator under Article XXI Part C, Subpart 2, shall have the right to appeal the action to the Director in accordance with the applicable County regulations and ordinances.

### 35. Risk Management (§2104.08, 40 CFR Part 68)

Should this stationary source, as defined in 40 CFR Part 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in Part 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by *General Condition III.12* above.

### 36. Permit Shield (§2103.22)

- a. The permittee's compliance with the conditions of this permit shall be deemed compliance with all major source applicable requirements as of the date of permit issuance, provided that:
  - 1) Such major source applicable requirements are included and are specifically identified in the permit; or
  - 2) The Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- b. Nothing in Article XXI §2103.22.e or the Title V Permit shall alter or affect the following:
  - 1) The provisions of Section 303 of the Clean Air Act and the provisions of Article XXI regarding emergency orders, including the authority of the Administrator and the Department under such provisions;
  - 2) The liability of any person who owns, operates, or allows to be operated, a source in violation of any major source applicable requirements prior to or at the time of permit issuance;
  - 3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; or
  - 4) The ability of the EPA or the County to obtain information from the permittee pursuant to

Section 114 of the Clean Air Act, the provisions of Article XXI and State law.

- c. Unless precluded by the Clean Air Act or regulations therein, final action by the Department on administrative amendments, minor and significant permit modifications, and operational flexibility changes shall be covered by the permit shield provided such amendments; modifications and changes meet the relevant requirements of Article XXI.
- d. The permit shield authorized under Article XXI §2103.22 is in effect for the permit terms and conditions as identified in this permit.

**37. Circumvention (§2101.14)**

For purposes of determining compliance with the provisions of this permit and Article XXI, no credit shall be given to any person for any device or technique, including but not limited to the operation of any source with unnecessary amounts of air, the combining of separate sources except as specifically permitted by Article XXI and the Department, the use of stacks exceeding Good Engineering Practice height as defined by regulations promulgated by the US EPA at 40 CFR §§51.100 and 51.110 and Subpart I, and other dispersion techniques, which without reducing the amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise violate the provisions of this Article; except that, for purposes of determining compliance with Article §2104.04 concerning odors, credit for such devices or techniques, except for the use of a masking agent, may be given.

**38. Duty to Supplement and Correct Relevant Facts (§2103.12.d.2)**

- a. The permittee shall provide additional information as necessary to address requirements that become applicable to the source after the date it files a complete application but prior to the Department taking action on the permit application.
- b. The permittee shall provide supplementary fact or corrected information upon becoming aware that incorrect information has been submitted or relevant facts were not submitted.
- c. Except as otherwise required by this permit and Article XXI, the Clean Air Act, or the regulations thereunder, the permittee shall submit additional information as necessary to address changes occurring at the source after the date it files a complete application but prior to the Department taking action on the permit application.
- d. The applicant shall submit information requested by the Department which is reasonably necessary to evaluate the permit application.

**39. Effect (§2102.03.g.)**

Except as specifically otherwise provided under Article XXI, Part C, issuance of a permit pursuant to Article XXI Part B or Part C shall not in any manner relieve any person of the duty to fully comply with the requirements of this permit, Article XXI or any other provision of law, nor shall it in any manner preclude or affect the right of the Department to initiate any enforcement action whatsoever for violations of this permit or Article XXI, whether occurring before or after the issuance of such permit. Further, except as specifically otherwise provided under Article XXI Part C the issuance of a permit shall not be a defense to any nuisance action, nor shall such permit be construed as a certificate of compliance with the requirements of this permit or Article XXI.

**40. Installation Permits (§2102.04.a.1.)**

It shall be a violation of this permit giving rise to the remedies set forth in Article XXI Part I for any person to install, modify, replace, reconstruct, or reactivate any source or air pollution control equipment unless:

- a. The Department has first issued an Installation Permit for such source or equipment; or
- b. Such action is solely a reactivation of a source with a current Operating Permit approved under §2103.13; or
- c. Such source is considered to be exempt under §2102.04.a.5.

**41. New Source Performance Standards (§2105.05)**

- a. It shall be a violation of this permit giving rise to the remedies provided by §2109.02 of Article XXI for any person to operate, or allow to be operated, any source in a manner that does not comply with all requirements of any applicable NSPS now or hereafter established by the EPA, except if such person has obtained from EPA a waiver pursuant to Section 111 or Section 129 of the Clean Air Act or is otherwise lawfully temporarily relieved of the duty to comply with such requirements.
- b. Any person who operates, or allows to be operated, any source subject to any NSPS shall conduct, or cause to be conducted, such tests, measurements, monitoring and the like as is required by such standard. All notices, reports, test results and the like as are required by such standard shall be submitted to the Department in the manner and time specified by such standard. All information, data and the like which is required to be maintained by such standard shall be made available to the Department upon request for inspection and copying.

#### IV. SITE LEVEL TERMS AND CONDITIONS

##### 1. Reporting of Upset Conditions (§2103.12.k.2)

The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

##### 2. Visible Emissions (§2104.01.a)

Except as provided for by Article XXI §2108.01.d pertaining to a cold start, no person shall operate, or allow to be operated, any source in such manner that the opacity of visible emissions from a flue or process fugitive emissions from such source, excluding uncombined water:

- a. Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
- b. Equal or exceed an opacity of 60% at any time.

##### 3. Odor Emissions (§2104.04) (County-only enforceable)

No person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line.

##### 4. Materials Handling (§2104.05)

The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line.

##### 5. Operation and Maintenance (§2105.03)

All air pollution control equipment required by this permit or any order under Article XXI, and all equivalent compliance techniques approved by the Department, shall be properly installed, maintained, and operated consistent with good air pollution control practice.

##### 6. Open Burning (§2105.50)

No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an Open Burning Permit to such person in accordance with Article XXI §2105.50 or where the open burning is conducted solely for the purpose of non-commercial preparation of food for human consumption, recreation, light, ornament, or provision of warmth for outside workers, and in a manner which contributes a negligible amount of air contaminants.

##### 7. Breakdowns (§2108.01.c)

- a. In the event that any air pollution control equipment, process equipment, or other source of air contaminants breaks down in such manner as to have a substantial likelihood of causing the emission of air contaminants in violation of this permit, or of causing the emission into the open air of potentially toxic or hazardous materials, the person responsible for such equipment or source shall immediately, but in no event later than sixty (60) minutes after the commencement of

- the breakdown, notify the Department of such breakdown and shall, as expeditiously as possible but in no event later than seven (7) days after the original notification, provide written notice to the Department.
- b. To the maximum extent possible, all oral and written notices required shall include all pertinent facts, including:
- 1) Identification of the specific equipment which has broken down, its location and permit number (if permitted), together with an identification of all related devices, equipment, and other sources which will be affected.
  - 2) The nature and probable cause of the breakdown.
  - 3) The expected length of time that the equipment will be inoperable or that the emissions will continue.
  - 4) Identification of the specific material(s) which are being, or are likely to be emitted, together with a statement concerning its toxic qualities, including its qualities as an irritant, and its potential for causing illness, disability, or mortality.
  - 5) The estimated quantity of each material being or likely to be emitted.
  - 6) Measures, including extra labor and equipment, taken or to be taken to minimize the length of the breakdown, the amount of air contaminants emitted, or the ambient effects of the emissions, together with an implementation schedule.
  - 7) Measures being taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impractical to shut down the source(s), or any part thereof, during the breakdown.
- c. Notices required shall be updated, in writing, as needed to advise the Department of changes in the information contained therein. In addition, any changes concerning potentially toxic or hazardous emissions shall be reported immediately. All additional information requested by the Department shall be submitted as expeditiously as practicable.
- d. Unless otherwise directed by the Department, the Department shall be notified whenever the condition causing the breakdown is corrected or the equipment or other source is placed back in operation by no later than 9:00 AM on the next County business day. Within seven (7) days thereafter, written notice shall be submitted pursuant to paragraphs a and b above.
- e. Breakdown reporting shall not apply to breakdowns of air pollution control equipment which occur during the initial startup of said equipment, provided that emissions resulting from the breakdown are of the same nature and quantity as the emissions occurring prior to startup of the air pollution control equipment.
- f. In no case shall the reporting of a breakdown prevent prosecution for any violation of this permit or Article XXI.



**8. Cold Start (§2108.01.d)**

In the event of a cold start on any fuel-burning or combustion equipment, except stationary internal combustion engines and combustion turbines used by utilities to meet peak load demands, the person responsible for such equipment shall report in writing to the Department the intent to perform such cold start at least 24 hours prior to the planned cold start. Such report shall identify the equipment and fuel(s) involved and shall include the expected time and duration of the startup. Upon written application from the person responsible for fuel-burning or combustion equipment which is routinely used to meet peak load demands and which is shown by experience not to be excessively emissive during a cold start, the Department may waive these requirements and may instead require periodic reports listing all cold starts which occurred during the report period. The Department shall make such waiver in writing, specifying such terms and conditions as are appropriate to achieve the purposes of Article XXI. Such waiver may be terminated by the Department at any time by written notice to the applicant.

**9. Emissions Inventory Statements (§2108.01.e)**

The permittee shall submit to the Department a written emissions inventory statement, in accordance with §2108.01.e, showing the actual emissions of all regulated air pollutants from such source(s) during each calendar year and all supporting and identifying information deemed necessary by the Department.

**10. Orders (§2108.01.f)**

In addition to meeting the requirements of General Condition III.28 and Site Level Conditions IV.7 through IV.9 above, inclusive, and IV.16 below, the person responsible for any source shall, upon order by the Department, report to the Department such information as the Department may require in order to assess the actual and potential contribution of the source to air quality. The order shall specify a reasonable time in which to make such a report.

**11. Violations (§2108.01.g)**

The failure to submit any report or update thereof required by General Condition III.28 and Site Level Conditions IV.7 through IV.10 above, inclusive, and IV.16 below within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

**12. Emissions Testing (§2108.02)**

- a. On or before December 31, 1981, and at two-year intervals thereafter, any person who operates, or allows to be operated, any piece of equipment or process which has an allowable emission rate, of 100 or more tons per year of particulate matter, sulfur oxides or volatile organic compounds shall conduct, or cause to be conducted, for such equipment or process such emissions tests as are necessary to demonstrate compliance with the applicable emission limitation(s) of this permit and shall submit the results of such tests to the Department in writing. Emissions testing conducted pursuant to this section shall comply with all applicable requirements of Article XXI §2108.02.e.
- b. **Orders.** In addition to meeting the requirements of Site Level Condition IV.12.a above, the person responsible for any source shall, upon order by the Department, conduct, or cause to be conducted, such emissions tests as specified by the Department within such reasonable time as is specified by the Department. Test results shall be submitted in writing to the Department within 20 days after completion of the tests, unless a different period is specified in the Department's

order. Emissions testing shall comply with all applicable requirements of Article XXI §2108.02.e.

- c. **Tests by the Department.** Notwithstanding any tests conducted pursuant to Site Level Conditions IV.12.a and IV.12.b above, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.
- d. **Testing Requirements.** No later than 45 days prior to conducting any tests required by this permit, the person responsible for the affected source shall submit for the Department's approval a written test protocol explaining the intended testing plan, including any deviations from standard testing procedures, the proposed operating conditions of the source during the test, calibration data for specific test equipment and a demonstration that the tests will be conducted under the direct supervision of persons qualified by training and experience satisfactory to the Department to conduct such tests. In addition, at least 30 days prior to conducting such tests, the person responsible shall notify the Department in writing of the time(s) and date(s) on which the tests will be conducted and shall allow Department personnel to observe such tests, record data, provide pre-weighed filters, analyze samples in a County laboratory and to take samples for independent analysis. Test results shall be comprehensively and accurately reported in the units of measurement specified by the applicable emission limitations of this permit.
- e. Test methods and procedures shall conform to the applicable reference method set forth in this permit or Article XXI Part G, or where those methods are not applicable, to an alternative sampling and testing procedure approved by the Department consistent with Article XXI §2108.02.e.2.
- f. **Violations.** The failure to perform tests as required by this permit or an order of the Department, the failure to submit test results within the time specified, the knowing submission of false information, the willful failure to submit complete results, or the refusal to allow the Department, upon presentation of a search warrant, to conduct tests, shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

### 13. Abrasive Blasting (§2105.51)

- a. Except where such blasting is a part of a process requiring an operating permit, no person shall conduct or allow to be conducted, abrasive blasting or power tool cleaning of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of Article XXI §2105.51.
- b. In addition to complying with all applicable provisions of §2105.51, no person shall conduct, or allow to be conducted, abrasive blasting of any surface unless such abrasive blasting also complies with all other applicable requirements of Article XXI unless such requirements are specifically addressed by §2105.51.

### 14. Asbestos Abatement (§2105.62, §2105.63)

In the event of removal, encasement, or encapsulation of Asbestos-Containing Material (ACM) at a facility or in the event of the demolition of any facility, the permittee shall comply with all applicable provisions of Article XXI §2105.62 and §2105.63.

**15. Protection of Stratospheric Ozone (40 CFR Part 82)**

- a. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - 1) All containers in which a Class I or Class II substance is stored or transported, all products containing a Class I substance, and all products directly manufactured with a process that uses a Class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106;
  - 2) The placement of the required warning statement must comply with the requirements pursuant to §82.108;
  - 3) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110; and
  - 4) No person may modify, remove or interfere with the required warning statement except as described in §82.112.
- b. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F:
  - 1) Persons opening appliances for maintenance, service, repair or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156;
  - 2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
  - 3) Persons maintaining, servicing, repairing or disposing of appliances, must be certified by an approved technician certification program pursuant to §82.161;
  - 4) Persons maintaining, servicing, repairing or disposing of appliances must certify to the Administrator of the U.S. Environmental Protection Agency pursuant to §82.162;
  - 5) Persons disposing of small appliances, motor vehicle air conditioners (MVAC) and MVAC-like appliances, must comply with the record keeping requirements pursuant to §82.166;
  - 6) Owners of commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and
  - 7) Owners or operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- c. If the permittee manufactures, transforms, destroys, imports or exports a Class I or Class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A (Production and Consumption Controls).
- d. If the permittee performs a service on a motor vehicle that involves an ozone-depleting substance, refrigerant or regulated substitute substance in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B (Servicing of Motor Vehicle

Air Conditioners).

- e. The permittee may switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G.

**16. Shutdown of Control Equipment (§2108.01.b)**

- a. In the event any air pollution control equipment is shut down for reasons other than a breakdown, the person responsible for such equipment shall report, in writing, to the Department the intent to shut down such equipment at least 24 hours prior to the planned shutdown. Notwithstanding the submission of such report, the equipment shall not be shut down until the approval of the Department is obtained; provided, however, that no such report shall be required if the source(s) served by such air pollution control equipment is also shut down at all times that such equipment is shut down.
- b. The Department shall act on all requested shutdowns as promptly as possible. If the Department does not take action on such requests within ten (10) calendar days of receipt of the notice, the request shall be deemed denied, and upon request, the owner or operator of the affected source shall have a right to appeal in accordance with the provisions of Article XI.
- c. The prior report required by Site Level Condition IV.16.a above shall include:
  - 1) Identification of the specific equipment to be shut down, its location and permit number (if permitted), together with an identification of the source(s) affected;
  - 2) The reasons for the shutdown;
  - 3) The expected length of time that the equipment will be out of service;
  - 4) Identification of the nature and quantity of emissions likely to occur during the shutdown;
  - 5) Measures, including extra labor and equipment, which will be taken to minimize the length of the shutdown, the amount of air contaminants emitted, or the ambient effects of the emissions;
    - a) Measures which will be taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impracticable to shut down or curtail the affected source(s) during the shutdown; and
    - b) Such other information as may be required by the Department.

**17. Fugitive Emissions (§2105.49)**

The person responsible for a source of fugitive emissions, in addition to complying with all other applicable provisions of this permit shall take all reasonable actions to prevent fugitive air contaminants from becoming airborne. Such actions may include, but are not limited to:

- a. The use of asphalt, oil, water, or suitable chemicals for dust control;
- b. The paving and maintenance of roadways, parking lots and the like;

- c. The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means;
- d. The adoption of work or other practices to minimize emissions;
- e. Enclosure of the source; and
- f. The proper hooding, venting, and collection of fugitive emissions.

**18. Episode Plans (§2106.02)**

The permittee shall upon written request of the Department, submit a source curtailment plan, consistent with good industrial practice and safe operating procedures, designed to reduce emissions of air contaminants during air pollution episodes. Such plans shall meet the requirements of Article XXI §2106.02.

**19. Fuel Specifications**

- a. Beginning July 1, 2016, and after exhausting the existing on-site fuel oil inventory of 0.3% sulfur content, the permittee shall only combust fuel oil meeting the specifications defined by ASTM D396-78, "Standard Specifications for Fuel Oils," and with a sulfur content that is not more than 0.05% sulfur by weight. (§2103.12.h.)
- b. Beginning on the issuance date of this permit, the permittee shall only purchase fuel oil with a maximum allowable sulfur content of 0.05% by weight. (§2103.12.h.)
- c. When combusting natural gas, only utility grade natural gas shall be combusted. (§2103.12.h., §60.41b)

**20. Annual Fuel Oil Cap**

The annual fuel oil cap usage between boilers 3, 6 and 7 shall not exceed 1,275,000 gallons per year (§2103.12.h.)

**21. Boilers 3, 6 and 7 Tune-Up Requirement:**

- a. The permittee shall conduct a performance tune-up according to condition IV.21.b below and shall submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted a tune-up of the boiler. [§63.11214.(b)]
- b. The permittee shall conduct a tune-up of the boilers to demonstrate continuous compliance as specified in conditions IV.21.b.1) through IV.21.b.7) below: [§63.11223(a); §63.11223(b); §63.11201]
  - 1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown, 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 permittee may delay the inspection until the next scheduled unit shutdown, 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 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 conditions IV.21.b.6)a) through IV.21.b.6)c) below:
    - a) 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.
    - b) A description of any corrective actions taken as a part of the tune-up of the boiler.
    - c) 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.
- c. The permittee must conduct a tune-up every 5 years as specified in condition IV.21.b.1) through IV.21.b.7) above. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The permittee may delay the burner inspection specified in condition IV.21.b.1) above and inspection of the system controlling the air-to-fuel ratio specified in condition IV.21.b.3) above until the next scheduled unit shutdown, but the permittee shall inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. [§63.11223(f)]
  - d. The permittee shall achieve compliance with the tune-up requirements no later than March 21, 2014. [§63.11196(a)(1); §63.11210(c)]
  - e. The permittee shall conduct a one-time energy assessment for boilers 3, 6 and 7, if they fire oil during periods other than gas curtailment or interruption. [§63.11201(b)]

**22. Boilers 3, 6 and 7 Tune-Up Recordkeeping and Reporting Requirement:**

- a. The permittee shall prepare a 5-year compliance report as specified in condition IV.22.a.1) and IV.22.a.2) below: [§63.11225(b)]
  - 1) Company name and address.
  - 2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and

a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

- a) This facility complies with the requirements in IV.21.b and IV.21.b.6)IV.21.c above to conduct a biennial or 5-year tune-up, as applicable, of each boiler.”
- b. The first 5-year compliance report required in condition IV.22.a above shall be due October 31, 2018 for the time period beginning on the issuance date of this permit through September 30, 2018. (§2103.12.k)
- c. The permittee shall maintain the records specified in conditions IV.22.c.1) through IV.22.c.2) below: [§63.11225.c]
  - 1) As required in § 63.10(b)(2)(xiv), the permittee must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.
  - 2) The permittee must keep records to document conformance with the work practices, and management practices required by conditions IV.21.a and IV.21.b through IV.21.c as specified in the conditions IV.22.c.2)a) and IV.22.c.2)b) below:
    - a) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
    - b) For each boiler that meets the definition of limited-use boiler, the permittee must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and records of fuel use for the days the boiler is operating.

***PERMIT SHIELD IN EFFECT***

**V. EMISSION UNIT LEVEL TERMS AND CONDITIONS**

**A. Boiler No. 1, Stack No. 2**

**Process Description:** Natural Gas Boiler with Sidewall Gas Burner  
**Facility ID:** Boiler No.1  
**Capacity:** 74 mmbtu/hr natural gas burner  
**Fuel(s):** Natural gas  
**Control Device:** None

**1. Restrictions:**

- a. Particulate matter emissions when combusting natural gas only in Boiler No. 1 shall not exceed 0.008 lb/MMBTU. (§2104.02.a.1.A.)
- b. At no time shall the permittee allow emissions of nitrogen oxides from Boiler No. 1 to exceed 0.92 pounds per MMBTU. (RACT Order No. 248, Condition 1.1; §2105.06.)
- c. Natural gas combustion in Boiler No.1 shall not exceed the maximum potential usage of 71,984 scf in any one-hour period and 630.58 mmscf in any consecutive twelve-month period. (§2103.12.h.1)
- d. Emissions from Boiler No.1 shall not exceed the limitations in Table V.A.1. below: (RACT Order No. 248, Condition 1.1§2101.02.c.4, §2103.12.a.2.B, §2104.03.a.2; §2104.03.b)

**TABLE V-A-1 – Boiler No. 1 Emission Limitations**

<b>Pollutant</b>	<b>Natural gas lb/hr</b>	<b>Annual Emission Limit (tons/year)*</b>
<b>Particulate Matter</b>	0.59	2.59
<b>PM-10</b>	0.59	2.59
<b>Nitrogen Oxides</b>	68.08	298.19
<b>Carbon Monoxide</b>	6.05	26.48
<b>Sulfur Dioxide</b>	0.04	0.19
<b>Volatile Organic Compounds</b>	0.40	1.73

\*A year is defined as any consecutive 12-month period.

- e. At no time shall the permittee operate the subject boiler using any fuel other than natural gas. (§2103.12.h.1)

**2. Testing Requirements:**

- a. The permittee shall perform nitrogen oxides emissions testing on Boiler No. 1 once every two years in order to demonstrate compliance with the emission limitations in conditions V.A.1.b and V.A.1.d above. Such testing shall be conducted in accordance with applicable U.S. EPA test



methods 7 through 7E or other test methods approved by the Department, Article XXI §2108.02 and Site Level Condition IV.12. (§2103.12.h.1; §2108.02; RACT Order No. 248, Condition 1.4)

- b. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.12 above and Article XXI §2108.02. (§2103.12.h.1)

### 3. Monitoring Requirements (§2102.04.e):

- a. The permittee shall inspect Boiler no.1 weekly, to insure the physical integrity of the boiler and associated equipment and to make sure the boiler is being operated and maintained properly and is operating under the conditions demonstrated during the most recent compliance test. Steam load and natural gas usage are monitored and recorded to fulfill the recording requirements of V.A.4.b below. (§2103.12.i)
- b. The permittee shall provide Department approved instrumentation to monitor the oxygen content, CO and NO<sub>x</sub> of the boiler exhaust on a monthly basis during operation. The oxygen content of the flue gas shall be monitored to within 3% of the measured value and be recorded to the nearest 0.1%, to ensure that the subject boiler is being operated and maintained properly. The instrumentation shall be maintained in good working condition at all times and be easily accessible. (§2103.12.i)

### 4. Record Keeping Requirements:

- a. Records shall be kept by the facility to demonstrate compliance with the requirements of §2105.06 and RACT Order No. 248. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 and RACT Order No. 248 are met. (RACT Order No. 248, Condition 1.6)
- b. The permittee shall keep and maintain the following data for Boiler No. 1: (§2103.12.h.1; RACT Order No. 248, Condition 1.7; §2105.06)
  - 1) Type and amount of fuel combusted (MMscf of natural gas/day and monthly total natural gas combusted);
  - 2) Steam load (lbs/hr, lbs/day; average daily steam load for each month);
  - 3) Cold starts (date, time and duration of each occurrence);
  - 4) Total operating hours, (hours/day, monthly and 12-month);
  - 5) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment (e.g. burner replacement, flame pattern adjustments, and air-to-fuel ratios); and
  - 6) Stack test protocols and reports.
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

### 5. Reporting Requirements:

- a. The permittee shall report the following information to the Department in accordance with

General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1)

1) Monthly and 12-month data summaries of:

- a) Type and amount of fuel combusted;
- b) Steam load (average daily steam load for each month);
- c) Cold starts (date, time and duration of each occurrence);
- d) Total operating hours.

2) Non-compliance information required to be recorded by V.A.4.c above.

b. Reporting instances of non-compliance in accordance with condition V.A.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.7 above, if appropriate. (§2103.12.k.1)

## 6. Work Practice Standards

The permittee shall not, at any time, operate Boiler No. 1 unless the subject boiler is properly operated and maintained according to good engineering and air pollution control practices by performing regular maintenance considering the manufacturer's or the permittee/operator's site specific maintenance procedures. (RACT Order No. 248, Condition 1.3; §2105.06; §2105.03)

## 7. Aggregation

a. Particulate Matter – Aggregation (§2104.02.a)

1) If one or more fuel burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable particulate matter emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue. (§2104.02.a)

b. Sulfur Oxides – Aggregation (§2104.03.b)

1) For purpose of §2104.03.a only, if one or more fuel-burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue.

2) For any single boiler house having two or more boilers with a combined rated heat input no greater than 50 million BTUs per hour, whose combined emissions would comply with the emission standards of §2104.03a if they were vented into a common flue, the Department may, upon written application from the person responsible for such boiler house, determine compliance with the aggregation requirement on the basis of the total emissions from and total heat input to all such boilers, provided that the applicant demonstrates that such actions will not prevent the attainment or maintenance of any ambient air quality standard established by §2101.10 or interfere with reasonable further progress toward the attainment of the NAAQS.

***PERMIT SHIELD IN EFFECT***

**B. Boiler No. 3, Stack No. 2**

**Process Description:** Natural Gas Boiler with Sidewall Gas/Oil Burner  
**Facility ID:** Boiler no. 3  
**Capacity:** Natural gas 128 mmbtu/hr, no.2 fuel oil 119 mmbtu/hr  
**Fuel(s):** Natural gas & No. 2 fuel oil for emergencies (NG curtailment)  
**Control Device:** None

**1. Restrictions:**

- a. The particulate matter emissions when combusting natural gas only in Boiler No. 3 shall not exceed 0.008 lb/MMBTU. (§2104.02.a.1.A.)
- b. The particulate matter emissions when combusting Fuel Oil only in Boiler No. 3 shall not exceed 0.015 lb/MMBTU. (§2104.02.a.1.B.)
- c. At no time shall the permittee allow emissions of nitrogen oxides from Boiler No.3 to exceed 0.63 pounds per MMBTU. (RACT Order No. 248, Condition 1.1)
- d. The annual average heat input to the natural gas burner in Boiler No.3 shall not exceed 64 MMbtu/hr or 560,640 MMbtu/yr, based on a natural gas heat content of 1,028 BTU/ft<sup>3</sup>. Bellefield shall determine compliance with this condition by maintaining records of natural gas use for the burner. (RACT Order No. 248, Condition 1.2)
- e. Natural gas combustion in Boiler No.3 shall not exceed the maximum potential usage of 124,515 scf in any one-hour period and/or 520 mmscf in any consecutive twelve-month period. (§2103.12.h.1)
- f. Fuel oil combusted in boiler no.3 shall not exceed the maximum potential usage of 850 gallons in any one-hour period and/or 425,000 gallons in any consecutive twelve-month period. All fuel oil combusted shall meet current ASTM specifications for no. 2 fuel oil and have a maximum sulfur content of 0.05% by weight at all times. (§2103.12.h.1)
- g. The boiler no.3 operating hours when firing fuel oil shall not exceed 500 hours per year. (§2103.12.h.1)
- h. The periodic testing and maintenance of the boiler using No. 2 fuel oil shall not exceed a combined total of 48 hours during any calendar year. [§2102.04.b.6; §63.11195(e)]
- i. The permittee shall only use fuel oil during periods of emergency, including gas curtailment and gas supply interruption, and during maintenance, periodic testing and startups. The permittee shall notify the Department before combusting No. 2 fuel oil and provide the Department with a copy of the curtailment notice (§2103.12.h.1)
- j. At no time shall the permittee operate the subject boiler using any fuel other than natural gas or no.2 fuel oil or any combination of the two. (§2103.12.h.1)

- k. Emissions from Boiler No.3 shall not exceed the limitations in Table V.B.1. below: (§2101.02.c.4, §2103.12.a.2.B, §2104.03.a.2; §2104.03.b)

**TABLE V-B-1 Boiler No. 3 Emission Limitations**

<b>Pollutant</b>	<b>Natural Gas lb/hr</b>	<b>Fuel Oil lb/hr</b>	<b>Annual Emission Limit tons/year*</b>
<b>Particulate Matter</b>	1.02	1.78	2.11
<b>PM-10</b>	1.02	1.78	2.11
<b>Nitrogen Oxides</b>	80.64	74.97	167.80
<b>Carbon Monoxide</b>	10.64	4.25	21.60
<b>Sulfur Dioxide</b>	0.07	103.61	20.72
<b>Volatile Organic Compounds</b>	0.68	0.29	1.40

\*A year is defined as any consecutive 12-month period.

**2. Testing Requirements:**

- a. The permittee shall perform nitrogen oxides emissions testing while combusting natural gas on boiler no. 3 once every two years in order to demonstrate compliance with the emission limitations in conditions V.B.1.c and V.B.1.k. Such testing shall be conducted in accordance with applicable U.S. EPA test methods 7 through 7E or other test methods approved by the Department, §2108.02. and Site Level Condition IV.12. (§2103.12.h.1; §2108.02; RACT Order No. 248, Condition 1.4)
- b. The permittee shall conduct testing while combusting fuel oil at least once every five (5) years to demonstrate compliance with the NO<sub>x</sub> and SO<sub>x</sub> limits in conditions V.B.1.k above. Testing for NO<sub>x</sub> and SO<sub>x</sub> shall be conducted in accordance with the following approved EPA Methods in Appendix A of 40 CFR Part 60, Article XXI §2108.02, and as approved by the Department: (§2103.12.h.1; §2108.02.b, §2108.02.e.)
- 1) Method 7, 7A, 7B, 7C, 7D, or 7E to determine the NO<sub>x</sub> emissions;
  - 2) Method 6 to determine the SO<sub>x</sub> emissions.
- c. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.12 above and Article XXI §2108.02. (§2103.12.h.1)

**3. Monitoring Requirements (§2102.04.e):**

- a. The permittee shall inspect Boiler no.3 weekly, to insure the physical integrity of the boiler and associated equipment and make sure the boiler is being operated and maintained properly and is operating under the conditions demonstrated during the most recent compliance test steam load and natural gas usage are monitored to fulfill the recording requirements of V.B.4.b below. (§2103.12.i)

- b. The permittee shall provide Department approved instrumentation to monitor the oxygen content, CO and NO<sub>x</sub> of the boiler exhaust on a monthly basis during operation. The oxygen content of the flue gas shall be monitored to within 3% of the measured value and be recorded to the nearest 0.1%, to ensure that the subject boiler is being operated and maintained properly. The instrumentation shall be maintained in good working condition at all times and be easily accessible. (§2103.12.i)

#### 4. Record Keeping Requirements:

- a. Records shall be kept by the facility to demonstrate compliance with the requirements of §2105.06 and RACT Order No. 248. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 and RACT Order No. 248 are met. (RACT Order No. 248, Condition 1.6)
- b. The permittee shall keep and maintain the following data for Boiler No. 3 (§2103.12.h.1; RACT Order No. 248, Condition 1.7; §2105.06)
  - 1) Type and amount of fuel combusted (MMscf of natural gas/day and monthly total natural gas combusted);
  - 2) Steam load (lbs/hr, lbs/day; average daily steam load for each month);
  - 3) Cold starts (date, time and duration of each occurrence);
  - 4) Total operating hours, (hours/day, monthly and 12-month);
  - 5) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment (e.g. burner replacement, flame pattern adjustments, and air-to-fuel ratios);
  - 6) Stack test protocols and reports; and
  - 7) Records to demonstrate compliance with Condition V.B.1.d above
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance.(§2103.12.h.1)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

#### 5. Reporting Requirements:

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1)
  - 1) Monthly and 12-month data summaries of:
    - a) Type and amount of fuel combusted;
    - b) Steam load (average daily steam load for each month);
    - c) Cold starts (date, time and duration of each occurrence); and
    - d) Total operating hours.
  - 2) Non-compliance information required to be recorded by V.B.4.c above.
- b. Reporting instances of non-compliance in accordance with condition V.B.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level

Condition IV.7 above, if appropriate. (§2103.12.k.1)

## 6. Work Practice Standards

- a. The permittee shall not, at any time, operate Boiler No. 3 unless the subject boiler is properly operated and maintained according to good engineering and air pollution control practices by performing regular maintenance considering the manufacturer's or the permittee/operator's site specific maintenance procedures. (RACT Order No. 248, Condition 1.3; §2105.06; §2105.03)

## 7. Aggregation

- a. Particulate Matter – Aggregation (§2104.02.a)
  - 1) If one or more fuel burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable particulate matter emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue. (§2104.02.a)
- b. Sulfur Oxides – Aggregation (§2104.03.b)
  - 1) For the purpose of §2104.03.a only, if one or more fuel-burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable sulfur oxides emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue.
  - 2) For any single boiler house having two or more boilers with a combined rated heat input no greater than 50 million BTUs per hour, whose combined emissions would comply with the emission standards of §2104.03a if they were vented into a common flue, the Department may, upon written application from the person responsible for such boiler house, determine compliance with the aggregation requirement on the basis of the total emissions from and total heat input to all such boilers, provided that the applicant demonstrates that such actions will not prevent the attainment or maintenance of any ambient air quality standard established by §2101.10 or interfere with reasonable further progress toward the attainment of the NAAQS.

***PERMIT SHIELD IN EFFECT***

**C. Boiler No. 5, Stack No. 2**

**Process Description:** Natural Gas-Fired Boiler with Sidewall Gas Burner  
**Facility ID:** Boiler no. 5  
**Capacity:** 74 mmbtu/hr  
**Fuel(s)** Natural gas  
**Control Device:** None

**1. Restrictions:**

- a. Particulate matter emissions when combusting natural gas only in Boiler No. 5 shall not exceed 0.008 lb/MMBTU. (§2104.02.a.1.A.)
- b. At no time shall the permittee allow emissions of nitrogen oxides from Boiler No. 5 to exceed 0.59 pounds per MMBTU. (RACT Order No. 248, Condition 1.1; §2105.06.)
- c. Natural gas combustion in Boiler No. 5 shall not exceed the maximum potential usage of 72,000 scf in any one-hour period and 630.72 mmscf in any consecutive twelve-month period. (§2103.12.h.1)
- d. At no time shall the permittee operate the subject boiler using any fuel other than natural gas. (§2103.12.h.1)
- e. Emissions from Boiler No.5 shall not exceed the limitations in Table V.C.1. below: (§2101.02.c.4, §2103.12.a.2.B, §2104.03.a.2; §2104.03.b)

**TABLE V-C-1 - Emission Limitations for Boiler No. 5**

<b>Pollutant</b>	<b>Natural Gas lb/hr</b>	<b>Annual Emission Limit tons/year*</b>
<b>Particulate Matter</b>	0.59	2.59
<b>PM-10</b>	0.59	2.59
<b>Nitrogen Oxides</b>	43.66	191.23
<b>Carbon Monoxide</b>	6.09	26.48
<b>Sulfur Dioxide</b>	0.04	0.19
<b>Volatile Organic Compounds</b>	0.40	1.73

\*A year is defined as any consecutive 12-month period.

**2. Testing Requirements:**

- a. The permittee shall perform nitrogen oxides emissions testing on Boiler No. 5 once every two years in order to demonstrate compliance with the emission limitations in conditions V.C.1.b and V.C.1.e. Such testing shall be conducted in accordance with applicable U.S. EPA test methods 7 through 7E or other test methods approved by the Department, §2108.02 and Site Level Condition IV.12. (§2103.12.h.1; §2108.02; RACT Order No. 248, Condition 1.4)

- b. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.12 above and Article XXI §2108.02. (§2103.12.h.1)

### 3. Monitoring Requirements (§2102.04.e):

- a. The permittee shall inspect Boiler no. 5 weekly, to insure the physical integrity of the boiler and associated equipment and make sure the boiler is being operated and maintained properly and is operating under the conditions demonstrated during the most recent compliance test. Steam load and natural gas usage are monitored to fulfill the recording requirements of V.C.4.b below. (§2103.12.i)
- b. The permittee shall provide Department approved instrumentation to monitor the oxygen content, CO and NO<sub>x</sub> of the boiler exhaust on a monthly basis during operation. The oxygen content of the flue gas shall be monitored to within 3% of the measured value and be recorded to the nearest 0.1%, to ensure that the subject boiler is being operated and maintained properly. The instrumentation shall be maintained in good working condition at all times and be easily accessible. (§2103.12.i)

### 4. Record Keeping Requirements:

- a. Records shall be kept by the facility to demonstrate compliance with the requirements of §2105.06 and RACT Order No. 248. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 and RACT Order No. 248 are met. (RACT Order No. 248, Condition 1.6)
- b. The permittee shall keep and maintain the following data for Boiler No. 5: (§2103.12.h.1; RACT Order No. 248, Condition 1.7; §2105.06)
  - 1) Type and amount of fuel used (tons of coal/day and MMscf of natural gas/day);
  - 2) Steam load (lbs/hr, lbs/day; average daily steam load for each month);
  - 3) Cold starts (date, time and duration of each occurrence);
  - 4) Total operating hours, (hours/day, monthly and 12-month);
  - 5) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment and
  - 6) Stack test protocols and reports.
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

### 5. Reporting Requirements:

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1)
  - 1) Monthly and 12-month data summaries of:



- a) Type and amount of fuel combusted;
- b) Steam load (average daily steam load for each month);
- c) Cold starts (date, time and duration of each occurrence); and
- d) Total operating hours.

2) Non-compliance information required to be recorded by V.C.4.c above.

- b. Reporting instances of non-compliance in accordance with condition V.C.5.a.2) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.7 above, if appropriate. (§2103.12.k.1)

#### 6. Work Practice Standards:

The permittee shall not, at any time, operate Boiler No. 5 unless the subject boiler is properly operated and maintained according to good engineering and air pollution control practices by performing regular maintenance considering the manufacturer's or the permittee/operator's site specific maintenance procedures. (RACT Order No. 248, Condition 1.3; §2105.06; §2105.03)

#### 7. Aggregation:

- a. Particulate Matter – Aggregation (§2104.02.a)

- 1) If one or more fuel burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable particulate matter emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue. (§2104.02.a)

- b. Sulfur Oxides – Aggregation (§2104.03.b)

- 1) For purpose of §2104.03.a only, if one or more fuel-burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable sulfur oxides emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue.

- 2) For any single boiler house having two or more boilers with a combined rated heat input no greater than 50 million BTUs per hour, whose combined emissions would comply with the emission standards of §2104.03a if they were vented into a common flue, the Department may, upon written application from the person responsible for such boiler house, determine compliance with the aggregation requirement on the basis of the total emissions from and total heat input to all such boilers, provided that the applicant demonstrates that such actions will not prevent the attainment or maintenance of any ambient air quality standard established by §2101.10 or interfere with reasonable further progress toward the attainment of the NAAQS.

***PERMIT SHIELD IN EFFECT***

**D. Boiler No. 6, Stack No. 2**

**Process Description:** Natural gas package boiler with FGR  
**Facility ID:** Boiler no. 6  
**Capacity:** Natural Gas/No.2 fuel oil- 179 MMbtu/hr  
**Fuel(s)** Natural gas, natural gas/no.2 fuel oil, no.2 fuel oil  
**Control Device:** FGR

**1. Restrictions:**

- a. The particulate matter emissions when combusting natural gas only in Boiler No. 6 shall not exceed 0.008 lb/MMBTU. (§2104.02.a.1.A.)
- b. The particulate matter emissions when combusting Fuel Oil only in Boiler No. 6 shall not exceed 0.015 lb/MMBTU. (§2104.02.a.1.B.)
- c. The particulate matter emissions when combusting oil and/or natural gas concurrently in Boiler No. 6 shall not exceed the allowable emissions (in lb/MMBTU) calculated by the formula in §2104.02.a.3. (§2104.02.a.3.)
- d. At no time shall the permittee allow emissions of nitrogen oxides from Boiler no.6 to exceed 0.28 pounds per MMBTU. (RACT Order No. 248, Condition 1.1)
- e. Natural gas usage in Boiler no.6 shall not exceed the maximum potential usage of 174,125 scf in any one-hour period and 1,440 MMscf in any consecutive twelve-month period. (§2103.12.h.1)
- f. No.2 fuel oil usage in Boiler no.6 shall not exceed the maximum potential usage of 1,280 gallons in any one-hour period and 640,000 gallons in any consecutive twelve-month period. All fuel oil combusted shall meet current ASTM specifications for no.2 fuel oil and have a maximum sulfur content of 0.05% by weight at all times (§2103.12.h.1)
- g. The boiler no. 6 annual operating hours when firing fuel oil shall not exceed 500 hours per year. (§2103.12.h.1)
- h. The permittee shall only use fuel oil during periods of emergency, including gas curtailment and gas supply interruption, and during maintenance, periodic testing and startups. (§2103.12.h.1)
- i. At no time shall the permittee operate Boiler no. 6 using any fuel other than natural gas or no.2 fuel oil. (§2103.12.h.1)
- j. The periodic testing and maintenance of the boiler using No. 2 fuel oil shall not exceed a combined total of 48 hours during any calendar year. [§2102.04.b.6; §63.11195(e)]
- k. The permittee shall only use fuel oil during periods of gas curtailment, gas supply interruption, periodic testing and startups. The permittee shall notify the Department before combusting No. 2 fuel oil and provide the Department with a copy of the curtailment notice (§2103.12.h.1)
- l. Boiler no. 6 shall be operated with a properly maintained and operated flue gas recirculation system at all times during boiler operation. (§2103.12.h.1)

- m. Emissions from Boiler No. 6 shall not exceed the limitations in Table V.D.1. below: (§2101.02.c.4, §2103.12.a.2.B, §2104.03.a.2; §2104.03.b)

**TABLE V-D-1 – Boiler No. 6 Emission Limitations**

<b>Pollutant</b>	<b>Natural Gas lb/hr</b>	<b>Fuel Oil lb/hr</b>	<b>Annual Emission Limit tons/year*</b>
<b>Particulate Matter</b>	1.43	2.69	5.91
<b>PM-10</b>	1.43	2.69	5.91
<b>Nitrogen Oxides</b>	50.12	50.12	207.0
<b>Carbon Monoxide</b>	14.63	6.39	60.42
<b>Sulfur Dioxides</b>	0.11	147.20	36.80
<b>Volatile Organic Compounds</b>	1.02	14.68	4.21

\*A year is defined as any consecutive 12-month period.

**2. Testing Requirements:**

- a. The permittee shall perform nitrogen oxides emissions testing while combusting natural gas on Boiler No. 6 once every two years in order to demonstrate compliance with the emission limitations in conditions V.D.1.d and V.D.1.m. Such testing shall be conducted in accordance with applicable U.S. EPA test methods 7 through 7E or other test methods approved by the Dept., §2108.02 and Site Level Condition IV.12. (§2103.12.h.1; §2108.02; RACT Order No. 248, Condition 1.4)
- b. The permittee shall conduct testing while combusting fuel oil at least once every five (5) years to demonstrate compliance with the NO<sub>x</sub> and SO<sub>x</sub> limits in conditions V.D.1.m above. Testing for NO<sub>x</sub> and SO<sub>x</sub> shall be conducted in accordance with the following approved EPA Methods in Appendix A of 40 CFR Part 60, Article XXI §2108.02, and as approved by the Department: (§2103.12.h.1; §2108.02.b, §2108.02.e.)
- 1) Method 7, 7A, 7B, 7C, 7D, or 7E to determine the NO<sub>x</sub> emissions;
  - 2) Method 6, 6C or equivalent to determine the SO<sub>x</sub> emissions.
- c. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.12 above and Article XXI §2108.02.” (§2103.12.h.1)

**3. Monitoring Requirements:**

- a. The permittee shall inspect Boiler no.6 weekly, to insure the physical integrity of the boiler and associated equipment, and make sure the boiler is being operated and maintained properly and is operating under the conditions demonstrated during the most recent compliance test. Steam load and natural gas usage are monitored to fulfill the recording requirements of V.D.4.b. (§2103.12.i; §2102.04.e)

- b. The permittee shall provide Department approved instrumentation to monitor the oxygen content, CO and NO<sub>x</sub> of the boiler exhaust on a monthly basis during operation. The oxygen content of the flue gas shall be monitored to within 3% of the measured value and be recorded to the nearest 0.1%, to ensure that the subject boiler is being operated and maintained properly. The instrumentation shall be maintained in good working condition at all times and be easily accessible. (§2103.12.i)

#### 4. Record Keeping Requirements:

- a. Records shall be kept by the facility to demonstrate compliance with the requirements of §2105.06 and RACT Order No. 248. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 and RACT Order No. 248 are met. (RACT Order No. 248, Condition 1.6; §2103.12.j)
- b. The permittee shall keep and maintain the following data for Boiler No. 6: (§2103.12.h.1; RACT Order No. 248, Condition 1.7; §2105.06; §2103.12.j)
- 1) Type and amount of fuel used (gallons fuel oil/day and MMscf of natural gas/day);
  - 2) Records of fuel oil suppliers' certification of sulfur content, and heating value (each shipment);
  - 3) Steam load (lbs/hr, lbs/day; average daily steam load for each month);
  - 4) Cold starts (date, time and duration of each occurrence);
  - 5) Total operating hours, (hours/day, monthly and 12-month);
  - 6) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.
  - 7) Stack test protocols and reports.
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance.(§2103.12.h.1; §2103.12.j)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

#### 5. Reporting Requirements:

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1)
- 1) Monthly and 12-month data summaries of:
    - a) Type and amount of fuel combusted;
    - b) Steam load (average daily steam load for each month);
    - c) Cold starts (date, time and duration of each occurrence); and
    - d) Total operating hours.
  - 2) Non-compliance information required to be recorded by V.D.4.c above.
- b. Reporting instances of non-compliance in accordance with condition V.D.5.a.2) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level

Condition IV.7 above, if appropriate. (§2103.12.k.1)

## 6. Work Practice Standards

- a. The permittee shall not, at any time, operate Boiler No. 6 unless the subject boiler is properly operated and maintained according to good engineering and air pollution control practices, by performing regular maintenance considering the manufacturer's or the permittee/operator's site specific maintenance procedures. (RACT Order No. 248, Condition 1.3; §2105.06; §2105.03)

## 7. Additional Requirements

### Aggregation

- a. Particulate Matter – Aggregation (§2104.02.a)
  - 1) If one or more fuel burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable particulate matter emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue. (§2104.02.a)
- b. Sulfur Oxides – Aggregation (§2104.03.b)
  - 1) For purpose of §2104.03.a only, if one or more fuel-burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable sulfur oxides emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue.
  - 2) For any single boiler house having two or more boilers with a combined rated heat input no greater than 50 million BTUs per hour, whose combined emissions would comply with the emission standards of §2104.03a if they were vented into a common flue, the Department may, upon written application from the person responsible for such boiler house, determine compliance with the aggregation requirement on the basis of the total emissions from and total heat input to all such boilers, provided that the applicant demonstrates that such actions will not prevent the attainment or maintenance of any ambient air quality standard established by §2101.10 or interfere with reasonable further progress toward the attainment of the NAAQS.

***PERMIT SHIELD IN EFFECT***

**E. Boiler No. 7, Stack No. 2**

**Process Description:** Natural gas package boiler with low NO<sub>x</sub> burners  
**Facility ID:** Boiler no. 7  
**Capacity:** Natural gas, No.2 fuel oil= 188 MMBtu/hr  
**Fuel(s)** Natural gas, No.2 fuel oil– For emergencies only  
**Control Device:** Low NO<sub>x</sub> burners

**1. Restrictions:**

- a. The permittee shall not operate or allow to be operated boiler no.7 for more than 4,032 hours during any consecutive twelve-month period. (Permit No. 91-I-0056-C, condition 1)
- b. Boiler no.7 capacity factor shall not exceed 50% as averaged over the hours the unit is in operation during any consecutive twelve-month period. (Permit No. 91-I-0056-C, condition 1)
- c. The particulate matter emissions when combusting natural gas only in boiler no.7 shall not exceed 0.008 lb/mmbtu. (§2104.02.a.1.A.)
- d. The particulate matter emissions when combusting fuel oil only in boiler no.7 shall not exceed 0.015 lb/mmbtu. (§2104.02.a.1.A.)
- e. At no time shall the permittee operate, or allow to be operated, boiler no.7 unless it is exclusively fueled by utility-supplied natural gas, with the conditional usage of no.2 fuel oil used during an emergency, including natural gas curtailment and gas supply interruption, and during maintenance, periodic testing and startups. The permittee shall notify the Department at least seven (7) work days prior to combusting no.2 fuel oil in boiler no.7, except in an emergency including natural gas curtailment. (§2103.12.a.2.B, Permit No. 91-I-0056-C, condition 2)
- f. Boiler no.7 shall be equipped with low NO<sub>x</sub> burners that meet the emission limitation in condition V.E.1.g below. (Permit No. 91-I-0056-C, condition 3)
- g. At no time shall the permittee allow emissions of nitrogen oxides from boiler no.7 to exceed 0.20 pounds per mmbtu. (RACT Order No. 248, Condition 1.1, §60.44b(a)(1); §2105.06.)
- h. The natural gas usage in boiler no.7 shall not exceed the maximum potential usage of 184,320 scf in any one-hour period and 372 MMscf in any consecutive twelve month period. (§2103.12.h.1)
- i. The No.2 fuel oil usage in boiler no.7 shall not exceed the maximum potential usage of 1,340 gallons in any one-hour period and 670,000 gallons in any consecutive twelve-month period. All fuel oil combusted shall meet current ASTM specifications for no.2 fuel oil and have a maximum sulfur content of 0.05% by weight at all times. (§2103.12.h., §60.42b(j)(2))
- j. The boiler no.7 operating hours when firing fuel oil shall not exceed 500 hours per year. (§2103.12.h.1)
- k. The periodic testing and maintenance of the boiler using No. 2 fuel oil shall not exceed a combined total of 48 hours during any calendar year. [§2102. 04. b. 6; §63. 11195 (e)]
- l. At no time shall the permittee operate the subject boiler using any fuel other than natural gas or

- no.2 fuel oil exclusive of each other with the exception of the transition period between the two fuels. (§2103.12.h.1, §60.44b(a))
- m. The nitrogen oxide emission standards in condition V.E.1.g above apply at all times including periods of startup, shutdown, or malfunction. (§60.44b(h))
  - n. The permittee shall demonstrate that fuel oil meets the sulfur content requirement of condition V.E.1.i above by maintaining fuel receipts as described in condition V.E.4.f below. (§60.49b(r))
  - o. When combusting No. 2 fuel oil in boiler no.7 the permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. The opacity standard applies at all times, except during periods of startup, shutdown or malfunction. Method 9 is used for determining the opacity of stack emissions (§60.43b(f) & (g))
  - p. Visible emissions resulting solely from the cold start of the boiler are excluded from the opacity requirements of condition V.E.1.o, if such a cold start has been reported as required by §2108.01.d of Article XXI. (§2104.01.b.3)
  - q. Emissions from boiler no.7 shall not exceed the limitations in Table V.E.1 below: (Permit No. 91-I-0056-C, condition 5, §2101.02.c.4, §2103.12.a.2.B, §2104.03.a.2; §2104.03.b)

**TABLE V-E-1 – Boiler No. 7 Emission Limitations**

<b>Pollutant</b>	<b>Natural Gas lb/hr</b>	<b>Fuel Oil lb/hr</b>	<b>Annual Emissions tons/year*</b>
<b>Particulate Matter</b>	1.00	2.82	1.00
<b>PM-10</b>	1.00	2.82	1.00
<b>Nitrogen Oxides</b>	38.0	37.60	38.00
<b>Carbon Monoxide</b>	27.0	7.24	27.0
<b>Sulfur Dioxide</b>	0.10	153.54	38.39
<b>Volatile Organic Compounds</b>	3.6	0.46	3.6

\*A year is defined as any consecutive 12-month period.

**2. Testing Requirements:**

- a. To determine compliance with the emission limits for nitrogen oxides required in conditions V.E.1.g and V.E.1.q, the permittee shall conduct the performance test as required under §60.8 using the continuous system for monitoring nitrogen oxides in paragraph V.E.3.a below. (§60.46b(e))
- b. Compliance with the nitrogen oxides emission standards under condition V.E.1.g shall be determined through the use of a 30-day performance test. During periods when performance tests are not requested, nitrogen oxides emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day rolling average emission rate is calculated

each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days. (§60.46b (e)(4))

- c. The permittee shall conduct testing while combusting fuel oil at least once every five (5) years to demonstrate compliance with the SO<sub>x</sub> limits in conditions V.E.1.q above. Such testing shall be conducted in accordance with applicable U.S. EPA test methods 6 or other test methods approved by the Department, §2108.02 and Site Level Condition IV.12. (§2103.12.h.1; §2108.02.b, §2108.02.e.)
- d. When firing no. 2 fuel oil in boiler no.7, where the permittee seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as specified in condition V.E.4.f below. (§60.45b(j))
- e. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.12 above and Article XXI §2108.02.. (§2103.12.h.1)

**3. Monitoring Requirements (§2102.04.e):**

- a. The permittee shall continue to calibrate, maintain, and operate a continuous monitoring system (CEMS) for the subject boiler, and record the output of the system, for measuring nitrogen oxide emissions discharged to the atmosphere. The CEMS data recorder shall convert the data to the required reporting units in compliance with 25 PA Code §§139.101-139.111 relating to requirements for continuous in-stack monitoring for stationary sources. The CEMS shall be approved by the Department prior to purchasing the system. (§60.48b(b)(1), §2108.02.a and 2108.03.b, & c)
- b. When combusting No. 2 fuel oil in the boilers, the permittee shall monitor opacity according to the following procedures: (60.13(i); §2103.12.i)
  - 1) Contact the Department by telephone within 24 hours in the event of temporary, emergency conversion to No. 2 fuel oil in accordance with the provisions specified in condition V.E.1.e above. Written notification shall be provided to the Department within five (5) days of the emergency conversion to No. 2 fuel oil;
  - 2) At least once during each daylight shift when the boiler(s) are combusting No. 2 fuel oil, an observer certified in accordance with U. S. Environmental Protection Agency (EPA) Method 9 shall perform a 6-minute visible emission observation consisting of 24 consecutive opacity readings. In order to obtain representative results, the oil consumption during the observation must be the maximum rate during the shift.
  - 3) An observer certified in accordance with EPA Method 9 shall perform a 6-minute visible emission observation whenever the boiler reaches the operating load after a cold startup with No. 2 fuel oil.
  - 4) If the average opacity for a 6-minute set of opacity readings collected in accordance with Condition V.E.3.b.2) or V.E.3.b.3) above exceeds 10%, the observer shall collect two additional 6-minute sets of visible emission readings for a total of three data sets.
  - 5) Records of the date and time of visible emission observations, along with the results of each observation, must be maintained.
- c. The continuous monitoring systems required in condition V.E.3.a above shall be operated and data recorded during all periods of operation of the affected facility except for continuous



monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. (§60.48b(c))

- d. The permittee shall continuously monitor the oxygen content of the flue gas boiler to within 3% of the measured value and record the oxygen content to the nearest 0.1%, to ensure the subject boiler is being operated and maintained properly and is operated under the conditions demonstrated during the most recent compliance test. (§2103.12.i)
- e. The permittee shall inspect Boiler no.7 weekly, to insure the physical integrity of the boiler and associated equipment, proper operation, maintenance and calibration of the oxygen flue gas monitor specified in condition V.E.3.d above and steam load and natural gas usage instrumentation used to fulfill the recording requirements of V.E.4.d.1) and V.E.4.b below. (§2103.12.i)
- f. The subject boiler shall have a properly installed and operating NO<sub>x</sub> continuous emission monitor in the exhaust stack of the unit in accordance with 40 CFR 60, Subpart Db at all times, along with the appropriate recordkeeping, reporting and quality assurance procedures. The continuous monitoring system shall be operated and data recorded during all periods of operation of boiler no. 7 except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. The monitor shall be operated and maintained in accordance with the requirements of 25 Pa Code Chapter 139 and Article XXI, §2108.03. (Permit No. 91-I-0056-C, condition 6, §60.48b(b)(1)(c), §2103.12.i)
- g. The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by condition V.E.3.f above and required under NSPS General Provisions 40 CFR 60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rate under condition V.E.1.g above. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(b). At least 2 data points must be used to calculate each 1-hour average. (§60.48b(d))
- h. The procedures under NSPS general Provisions 40 CFR 60.13 shall be followed for evaluation, and operation of the continuous monitoring system. The span value for nitrogen oxides shall be 500 ppm (§60.48b(e))
- i. When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours of boiler no. 7, in at least 22 out of 30 successive boiler operating days. (§60.48b(f))
- j. The permittee shall submit the results of the continuous nitrogen oxides monitoring systems on a regular schedule and in a format acceptable to the Department and in compliance with 25 Pa. Code 139.101 – 139.111. (§2108.03.b.3)
- k. Continuous nitrogen oxides monitoring systems shall meet the minimum data availability requirements in 25 Pa. Code 139, Subchapter C. (§2108.03.b.4)
- l. The permittee shall retain the data collected by the nitrogen oxides monitoring system(s) for a period of five years and shall, upon request, make such data available to the Department for inspection and copying. In addition, the permittee shall submit to the Department a written report

of such data at three month intervals. The report shall include at a minimum: (§60.49b(o) and §2108.03.d)

- 1) An identification of each instance during the reporting period during which emissions exceeded the applicable emission limitations rates in condition V.E.1.g and an identification of the reasons, if known, for such exceedance. The averaging period used for making such identification shall correspond to the averaging period specified in condition V.E.3.n below.
  - 2) An identification of each period during which the continuous emission monitoring system was inoperative, except for zero and span drift checks, the reasons therefore, and the nature of repairs or adjustments performed or to be performed.
  - 3) An identification of calibrations, zero and span drift checks, and other quality assurance procedures.
- m. No nitrogen oxides continuous emission monitoring system shall be considered to meet the requirements of §2108.02 and §2108.03 unless such system has been approved by the Department in writing. At least 45 days prior to installing any such system, the permittee shall make written application to the Department for the approval of such system, which application shall include a thorough description of the system, the location where such system will be installed, a program for periodic calibration, zero and span drift checks and other quality assurance procedures and all other information needed by the Department to evaluate such system. The Department shall make its evaluation in accordance with all relevant guidelines, including the performance specifications and other requirements of Appendix P of 40 CFR Part 51 and Appendix B of 40 CFR Part 60, including all modifications to such appendices as may hereafter be made by the EPA. (§2108.03.e)
- n. For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards in condition V.E.1.g above. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [§60.46b(e)(1)]

**4. Record Keeping Requirement:**

- a. Records shall be kept by the facility to demonstrate compliance with the requirements of §2105.06 and RACT Order No. 248. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 and RACT Order No. 248 are met. (RACT Order No. 248, Condition 1.6; §2103.12.j)
- b. The permittee shall record and maintain records of the amounts of each fuel combusted in boiler no.7 during each day in gallons of fuel oil/day and MMscf of natural gas/day and calculate the annual capacity factor individually for No. 2 fuel oil and natural gas for the reporting period. The annual capacity factor shall be determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. (§60.49b(d), RACT Order No. 248, Condition 1.7; §2103.12.j)
- c. The permittee shall maintain records of the following information for boiler no.7 for each steam generating unit operating day: (§60.49b(g); §2103.12.j)

- 1) Calendar date.
  - 2) The average hourly measured nitrogen oxides emission rate, expressed as lbs-NO<sub>2</sub>/million Btu heat input.
  - 3) The 30-day average nitrogen oxides emission rates (lbs-NO<sub>2</sub>/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
  - 4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standard in condition V.E.1.g above, with the reasons for such excess emissions as well as a description of corrective actions taken.
  - 5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
  - 6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
  - 7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
  - 8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
  - 9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.
  - 10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Part 60, Appendix F, Procedure 1.
- d. The permittee shall keep and maintain the following data for boiler no.7: (§2103.12.h.1, RACT Order No. 248, Condition 1.7; §2103.12.j)
- 1) Steam load (lbs/hr, lbs/day; average daily steam load for each month);
  - 2) Flue gas oxygen concentration (hourly average; maximum hourly concentration observed each month; monthly average concentration)
  - 3) Cold starts (date, time and duration of each occurrence);
  - 4) Total operating hours, (hours/day, monthly and 12-month); and
  - 5) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.
  - 6) Stack test protocols and reports.
- e. The permittee shall maintain records of the opacity monitoring specified in paragraph V.E.3.b above. (§60.49b(f); §2103.12.j)
- f. The permittee shall obtain and maintain records of No. 2 fuel oil receipts from the fuel oil supplier, which certify that the oil meets the specification for No. 2 fuel oil as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils and that the sulfur content of the No. 2 fuel oil is not more than 0.3% by weight. (§60.42b(j)(2); §60.49b(r) and §2103.12.j)
- g. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1; §2103.12.j)
- h. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

**5. Reporting Requirements:**

- a. The permittee shall submit excess emission reports semiannually for any excess emissions that occurred during the reporting period. Excess opacity emissions are defined as any period or periods that exceed the opacity standards in conditions V.E.1.o above. Excess nitrogen oxide emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate which exceeds the emission limit in condition V.E.1.g above. (§60.49b(h)(2)(ii), (h)(3) & (h)(4))
- b. The permittee shall submit semiannual reports to the Department certifying that only very low sulfur No. 2 fuel oil (0.05%) was combusted in the boilers during the reporting period. (§60.49b(r))
- c. The permittee shall submit semiannual reports containing the information required in conditions V.E.4.b, and V.E.4.c above. (§60.49b(i))
- d. The permittee may submit electronic quarterly reports for NO<sub>x</sub> and/or opacity in lieu of submitting the written reports required under paragraphs V.E.5.a and V.E.5.c above. The format of each quarterly electronic report shall be coordinated with the Department. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the applicable emission standards and minimum data requirements were achieved during the reporting period. Before submitting reports in the electronic format, the permittee shall coordinate with the Department to obtain their agreement to submit reports in this alternative format. (§60.49b(v))
- e. Until terminated by written notice from the Department, the requirement for the permittee to report cold starts 24 hours in advance in accordance with §2108.01.d is waived and the permittee may report all cold starts in accordance with condition V.E.5.g below. (§2108.01.d)
- f. The permittee shall report all instances of non-compliance with the conditions of this permit to the Department in accordance with General Condition III.15. (§2103.12.h.1)
- g. The semiannual reports required by this permit shall be submitted in accordance with the requirements of General Condition III.15. (§60.49b(w))
- h. Reporting instances of non-compliance in accordance with conditions V.E.5.a through V.E.5.f above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition 7, if appropriate. (§2103.12.k.1)

**6. Work Practice Standards:**

- a. Boiler no.7 shall be: (§2103.12.h.1, RACT Order No. 248, Condition 1.3)
  - 1) Operated and maintained in a manner consistent with good air pollution control practices;
  - 2) Operated and maintained in a manner consistent with good operating and maintenance practices.
  - 3) Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit.

**7. Additional Requirements**

- a. Particulate Matter – Aggregation (§2104.02.a)
  - 1) If one or more fuel burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable particulate matter emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue. (§2104.02.a)
  
- b. Sulfur Oxides – Aggregation (§2104.03.b)
  - 1) For purpose of §2104.03.a only, if one or more fuel-burning or combustion emissions units are vented into a common flue, such emissions units shall be considered one emissions unit and allowable sulfur oxides emissions shall be determined on the basis of total heat input to all emissions units vented to such common flue.
  
  - 2) For any single boiler house having two or more boilers with a combined rated heat input no greater than 50 million BTUs per hour, whose combined emissions would comply with the emission standards of §2104.03a if they were vented into a common flue, the Department may, upon written application from the person responsible for such boiler house, determine compliance with the aggregation requirement on the basis of the total emissions from and total heat input to all such boilers, provided that the applicant demonstrates that such actions will not prevent the attainment or maintenance of any ambient air quality standard established by §2101.10 or interfere with reasonable further progress toward the attainment of the NAAQS.
  
- c. The failure to install and operate any continuous emissions monitoring system required by §2108.03 or §2108.02 within the time specified, the failure to retain any data or submit any report so required, or the knowing retention or reporting of false data shall be a violation of this permit giving rise to the remedies provided by §2109.02. (§2108.03.f)

***PERMIT SHIELD IN EFFECT***

**F. Boiler No. 8a, Stack No. 2**

**Process Description:** Package boiler  
**Facility ID:** Boiler no. 8a  
**Max. Design Rate:** 87 mmbtus/hr  
**Fuel:** Natural gas only  
**Control Device:** Low NO<sub>x</sub> burners with optional Flue Gas Recirculation

**1. Restrictions:**

- a. At no time shall the permittee operate, or allow to be operated, boiler no. 8a unless it is exclusively fueled by utility-supplied natural gas. (Permit No. 0047-I001f, condition V.A.1.a, §2102.04(b)(6))
- b. The heat input shall be limited to 87 MMBtu/hr based on the higher heating value of the fuel being combusted. [Permit No. 0047-I001f, condition V.A.1.b; §2102.04(b)(6)]
- c. Emissions of particulate matter not exceed 0.008 lb/mmbtu while combusting natural gas. (Permit No. 0047-I001f, condition V.A.1.c)
- d. Emissions of sulfur oxides from each unit shall not exceed 0.0006 lb/mmbtu while combusting natural gas . (Permit No. 0047-I001f, condition V.A.1.d)
- e. Emissions of nitrogen oxides shall not exceed 0.055 lb/mmbtus (53 ppmvd ) @3% O<sub>2</sub> . (Permit No. 0047-I001f, condition V.A.1.e; §2102.04(b)(6))
- f. Emissions of carbon monoxide shall not exceed 0.082 lb/mmbtus (130 ppmvd ) @3% O<sub>2</sub>. (Permit No. 0047-I001f, condition V.A.1.f; §2102.04(b)(6))
- g. Emissions of volatile organic compounds shall not exceed 0.0054 lb/mmbtus (15 ppmvd as methane) @3% O<sub>2</sub>. (Permit No. 0047-I001f, condition V.A.1.g; §2102.04(b)(6))
- h. Emissions from Boiler No. 8a shall not exceed the following limitations: (Permit No. 0047-I001f, condition V.A.1.h; §2102.04(b)(6))

<b>Pollutant</b>	<b>Hourly (lb/hr)</b>	<b>Annual Emission Limit (tons/year*)</b>
<b>Particulate Matter</b>	0.70	3.05
<b>PM-10</b>	0.70	3.05
<b>Nitrogen Oxides</b>	4.80	20.90
<b>Carbon Monoxide</b>	7.10	24.50
<b>Sulfur Oxides</b>	0.05	0.23
<b>Volatile Organic Compounds</b>	0.47	2.10

\*A year is defined as any consecutive 12-month period.

**2. Testing Requirements:**

- a. Testing shall be conducted in accordance with 40 CFR 60.46b(e) for nitrogen oxides. (Permit No. 0047-I001f, condition 2.a; §2102.04(b)(6); §2103.12(h)(1))
- b. Testing shall be conducted to confirm the accuracies of NO<sub>x</sub>, CO and O<sub>2</sub> continuous emission monitors (CEMs) (Permit No. 0047-I001f, condition V.A.2.b; §2102.04(b)(6); §2103.12(h)(1))
- c. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.12 and §2108.02. (§2103.12.h.1)

**3. Monitoring Requirements (§2102.04.e):**

- a. The permittee shall install, operate and maintain continuous monitors for fuel flow measurement, nitrogen oxides and carbon monoxide. [§2102.04(b)(6); §2103.12(i); Permit No. 0047-I001f, condition 3.a)
- b. The monitors required by V.F.3.a. above shall be approved by the Department and installed, operated and maintained in accordance with the requirements of 25 Pa Code Chapter 139 and Article XXI, §2108.03. Proposals containing information as listed in Phase I section of the PADEP Continuous Source Monitoring Manual must be submitted to the PADEP and the Department at least 3 months prior to start-up. [§2102.04(b)(6); §2103.12(i); Permit No. 0047-I001f, condition V.A.3.b)
- c. The permittee shall operate and maintain control equipment and monitoring instrumentation in accordance with the manufacturers' specifications and good air pollution control practice. (Permit No. 0047-I001f, condition 3.c; §2105.03)
- d. Monitoring shall also be performed for nitrogen oxides in accordance with 40 CFR 60.48b(b) through 60.48b(f). (§2103.12.i; §2102.04(b)(6); Permit No. 0047-I001f, condition V.A.3.d)

**4. Record Keeping Requirements:**

- a. The permittee shall maintain all records of calibration checks, adjustments and maintenance performed on all equipment which is subject to this permit. (Permit No. 0047-I001f, condition V.A.4.a; §2102.04(b)(6); §2103.12(j))
- b. The permittee shall maintain onsite a copy of the manufacturer's specifications for all CEMs that are required by this permit. (Permit No. 0047-I001f, condition 4.b; §2103.12.j)
- c. Start-up and shutdown of Boiler No. 8a shall be recorded, including date, time and duration of each event. (Permit No. 0047-I001f, condition V.A.4.c; §2102.04(b)(6); §2103.12(j))
- d. Records shall be kept of the data from the continuous emission monitor sufficient to demonstrate compliance with the conditions of this permit and 40 CFR 60.49b. (Permit No. 0047-I001f, condition V.A.4.d; §2102.04(b)(6); §2103.12(j))

**5. Reporting Requirements:**

- a. The following shall be reported to the Department on a semi-annual basis: [Permit No. 0047-I001f, condition 5.a; §2102.04(b)(6); §2103.12(k)]
  - 1) Monthly fuel usage and monthly hours of operation shall be reported to the Department on a semi-annual basis.
  - 2) Rolling 12-month total emissions of nitrogen oxides and carbon monoxide for each month of the reporting period including emissions due to startup and shutdown.
- b. Reports shall be submitted to the Department within 30 days of the end of the calendar half or quarter as appropriate. [Permit No. 0047-I001f, condition V.A.5.b; §2102.04(b)(6); §2103.12(k)]
- c. Reporting instances of non-compliance or malfunction, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition 6. [Permit No. 0047-I001f, condition V.A.5.c §2102.04(b)(6); §2103.12(k); §2108.01(c)]
- d. The permittee shall comply with all the notification and reporting requirements of 40 CFR Part 60 Subpart A and 40 CFR 60.49b. [Permit No. 0047-I001f, condition V.A.5.d; §2102.04(b)(6); §2103.12(k)]

**6. Work Practice Standards:**

- a. Boiler no.8a shall be: [Permit No. 0047-I001f, condition V.A.4.d; §2102.04(b)(6); §2105.03]
  - 1) Operated and maintained in a manner consistent with good air pollution control practices;
  - 2) Operated and maintained in a manner consistent with good operating and maintenance practices.
  - 3) Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit.

**7. Additional Requirements**

None unless provided elsewhere.

***PERMIT SHIELD IN EFFECT***



**G. Emergency Generator**

**Process Description:** Two (2) Emergency Generators A & B  
**Facility ID:** Same  
**Max. Design Rate:** 771 hp (5.4 MMBtu/hr) each  
**Fuel:** Diesel  
**Control Device:** None

**1. Restrictions:**

- a. The permittee shall not operate or, allow to be operated the subject generators unless the generators are properly operated and maintained according to the following specifications, at all times:
  - 1) The generators shall be properly operated and maintained according to manufacturer’s specifications. The manufacturer’s operation and maintenance manuals shall be kept on site at all times.
  - 2) The generators shall combust only diesel fuel. All diesel fuel combusted shall have a maximum allowable sulfur content of 0.05%, by weight.
- b. Diesel fuel consumption shall be limited to 40 gallons/hour and 20,000 gallons/yr on each generator, based a heating value of 141,000 BTU/gal. Diesel fuel shall be fired during emergency conditions and for test burning for emergency preparedness only. The permittee shall notify the Department at least seven (7) work days prior to any load testing burning.
- c. Emissions due to operation of the emergency generator shall not exceed the following limitations:

**TABLE V-G-1 – Emergency Generator Emission Limitations (each)**

<b>Diesel</b>		
<b>Pollutant</b>	<b>lbs/hr</b>	<b>tons/yr</b>
PM	0.54	0.14
PM10	0.54	0.14
NOx	17.28	4.32
CO	4.59	1.15
SO2	0.11	0.03
VOC	0.44	0.11

\*A year is defined as any consecutive 12-month period.

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit.

**3. Monitoring Requirements (§2102.04.e):**

*None unless provided elsewhere.*

**4. Record Keeping Requirements (§§2103.12.j & k):**

- a. The permittee shall keep and maintain the following data for the subject generators.
  - 1) Fuel consumption (daily, monthly, and 12-month), type of fuel consumed and suppliers' certification of sulfur content, and heating value;
  - 2) Date, time and duration of emergency generators operation (each use); and
  - 3) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.
- b. Records of diesel fuel certifications from fuel suppliers shall be maintained per shipment. Certifications shall include the name of the supplier and a statement from the supplier that the fuel complies with ASTM D975 "Standard Specifications for Diesel Fuel Oils."
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance.
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying.

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report:
  - 1) Monthly and 12-month data required to be recorded by condition V.G.4.a above;
  - 2) Cold start information; and
  - 3) Non-compliance information required to be recorded by V.G.4.c above.
  - 4) Diesel fuel certifications and a statement from the permittee that the record of fuel supplier certifications represent all the diesel fuel used during the reporting period.
- b. Until terminated by written notice from the Department, the requirement for the permittee to report cold starts 24 hours in advance in accordance with §2108.01.d is waived and the permittee may report all cold starts in accordance with Condition V.G.5.a above.
- c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.7 above, if appropriate.

**6. Work Practice Standards:**

*None unless provided elsewhere.*

**VI. MISCELLANEOUS**

## VII. ALTERNATIVE OPERATING SCENARIOS

*There are no alternative operating scenarios for this facility.*

**VIII. EMISSIONS LIMITATIONS SUMMARY**

*[This section is provided for informational purposes only and is not intended to be an applicable requirement.]*

The tons/year emission limitations for the Bellefield Boiler facility are summarized in the following table:

**TABLE VII-1  
Emission Limitations**

<b>POLLUTANT</b>	<b>ANNUAL EMISSION LIMIT (tons/year)*</b>
<b>Particulate Matter</b>	20.66
<b>PM-10</b>	20.66
<b>SO<sub>x</sub></b>	97.07
<b>NO<sub>x</sub></b>	946.75
<b>CO</b>	217.81
<b>VOC</b>	18.89

\*A year is defined as any consecutive 12-month period.