V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

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A. Riley Boiler Nos. 1, 2 & 3

Process Description: Water Tube Boiler, Multi-Fuel Firing
Facility ID: B001- B003
Capacity: 525 MMBtu/hr, each boiler
Max. Design Rate: 525 MMBtu/hr, each boiler
Fuel/Raw Material: BFG, COG, NG; Fuel Oil
Control Device(s): None
Stack Ids: S012 (#1 Boiler); S013 (#2 Boiler); S014 (#3 Boiler) are each equipped with a NO_X Continuous Emission Monitoring (CEM) System

1. Restrictions:

~~a. The permittee shall continue to meet the conditions of the current Title V Operating Permit #0051 not otherwise affected by the revisions in this permit. (§2102.04.b.5; §2105.06.d)~~

b. The permittee shall not exceed, at any time, with the exception of actions to mitigate emergency conditions, an annual natural gas capacity factor of 78.4% for each Riley Boiler. (RACT Order No. 235; 25 Pa Code §129.99; §2102.04.b.5).

c. At no time shall the permittee allow Riley Boilers No. 1, 2 or 3 to operate unless the subject equipment is properly operated and maintained according to good engineering and air pollution control practices by performing regular maintenance with the exception of actions to mitigate emergency conditions. (RACT Order No. 235, Condition 1.1; §2102.04.b.5; 25 Pa Code §129.99).

d. NO_X emissions from each Riley Boilers No. 1, 2 or 3 shall not exceed the limitations in Table V-A-1 below, with the exception of actions to mitigate emergency situations such as during periods of blast furnace gas curtailment or supply interruption for reasons beyond the control of the facility: (25 Pa Code §129.99; §2102.04.b.5; §2105.06.d)

TABLE V-A-1: NO_X Emission Limitations

Process	Emission Limit** lbs/MMBtu	Hourly** Emission Limit (lb/hr)	Annual*** Emission Limit lbs/MMBtu
Boiler 1	0.07	36.75**	0.05
Boiler 2	0.07	36.75**	0.05
Boiler 3	0.07	36.75**	0.05

*A year is defined as any consecutive 12-month period.
**Based on 30-day rolling average Continuous Emission Monitoring (CEM) data.
***Based on 12-month rolling average Continuous Emission Monitoring (CEM) data.

2. Testing Requirements:

a. The permittee shall perform particulate matter, sulfur oxides and nitrogen oxides emissions testing on Riley Boilers No. 1, 2 and 3 once every two years from the date of the prior valid test in order

to demonstrate compliance with Conditions V.A.1.b and V.A.1.d above. Such testing shall be conducted under maximum normal (i.e., mixed fuel) operating conditions in accordance with applicable U.S. EPA approved test methods, Article XXI §2108.02, or another Department approved test method. During this testing, the permittee shall compute the F-factor for BFG combustion. (§2103.12.h.1; §2108.02.b, §2108.02.e; 25 Pa Code §129.99; 25 Pa Code §129.100)

b. Emissions of NO_X may be determined by the CEMs required in Condition V.A.3.a below in lieu of a stack test to determine compliance with the emissions limitation of Condition V.A.1.b and V.A.1.e above. (§2103.12.i; §2103.12.h.1; §2108.02; §2108.03; 25 Pa Code §129.99; 25 Pa Code §129.100)

~~c. 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.14 above and Article XXI §2108.02. (§2103.12.h.1)~~

3. Monitoring Requirements:

a. The permittee shall install, calibrate, maintain, and operate a CEM for Riley Boilers No. 1, 2 and 3, and record the output of each system, for measuring nitrogen oxide emissions discharged to the atmosphere. The CEM 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. (§2108.03.b.2, RACT Order No. 235, Condition 1.4; §2102.04.b.5; 25 Pa Code §129.100)

4. Record Keeping Requirements

a. The permittee shall maintain all appropriate records to demonstrate compliance with the requirements of §2105.06. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 are met. The permittee shall record and maintain such data and information required to determine compliance for the facility in a time frame consistent with the averaging period of the requirements of both §2105.06 and RACT Order No. 235. (§2102.04.b.5; §2108.03.d, §2105.06; 25 Pa Code §129.100)

~~b. 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.j; §2103.12.h.1)~~

c. All records shall be retained by the facility for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2; 25 Pa Code §129.100)

5. Reporting Requirements

~~a. The permittee shall report the following information semiannually 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) Total monthly Fuel Combustion Unit fuel use, per fuel type;~~
~~2) The monthly average H_2S content of the COG fired; and~~
~~3) Non-compliance information required to be recorded by condition V.A.4.b above.~~

b. The permittee shall report the following information quarterly to the PADEP in accordance with V.A.4.a: (25 Pa Code §129.100; §2108.03.d)

1) An identification of each instance during the reporting period during which emissions exceeded the applicable emission limitation rates in Condition V.A.1.d 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.A.1.d above.
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.

~~c. Reporting instances of non-compliance in accordance with condition V.A.5.a.3) 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 Requirements:

The permittee shall calibrate, maintain, and operate the Fuel Combustion Units according manufacturer's recommendations and good engineering practices. (§2105.03; 25 Pa Code §129.99)

~~**7. Additional Requirements**~~

~~None except as specified elsewhere.~~

B. Process P001b: Blast Furnace No. 1 Stoves; Process P002b: Blast Furnace No. 3 Stoves

Process Description: Blast Furnace No. 1 Stoves and Blast Furnace No. 3 Stoves (3 Stoves for each blast furnace)
Facility ID: P001b and P002b
Max. Heat Input: 495 MMBtu/hour (total for each set of blast furnace stoves)
Fuel(s): BFG, COG, NG
Control Device(s): None
Stack I.D.: S001 and S004

1. Restrictions:

~~a. The permittee shall continue to meet the conditions of the current Title V Operating Permit #0051 not otherwise affected by the revisions in this permit. (§2102.04.b.5; §2105.06.d)~~

b. NO_X emissions from each Stoves No. 1 or 3 shall not exceed the limitations in Table V-B-1 below, with the exception of actions to mitigate emergency situations: [25 Pa Code §129.99; §2102.04.b.5; §2105.06.d]

TABLE V-B-1: NO_X Emission Limitations

Process	Emission Limit lbs/MMBtu	Hourly Emission Limit (lb/hr)	Annual Emission Limit (tons/year)*
Blast Furnace Stove 1	0.03	14.85	65.04
Blast Furnace Stove 3	0.03	14.85	65.04

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

2. Testing Requirements:

a. The permittee shall perform nitrogen oxides emissions testing on the Blast Furnace No. 1 Stove or the Blast Furnace No. 3 Stove once every two years from the date of the prior valid test in order to demonstrate compliance with Condition V.B.1.b above. Such testing shall be conducted under maximum normal (i.e., mixed fuel) operating conditions in accordance with applicable U.S. EPA approved test methods, Article XXI §2108.02, or another Department approved test method. (§2103.12.h.1; §2108.02.b, §2108.02.e; 25 Pa Code §129.99; 25 Pa Code §129.100)

~~b. 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 condition IV.14 and Article XXI §2108.02. [§2103.12.h.1]~~

~~3. Monitoring Requirements:~~

~~None, except as provided elsewhere.~~

4. Record Keeping Requirements:

a. The permittee shall keep and maintain the following data for the No. 1 and No. 3 Blast Furnace

Stoves: (§2103.12.h; §2103.12.j; 25 Pa Code §129.100)

1) Fuel type and consumption (daily, monthly, and 12-month);
2) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment necessary for proper operation of the stoves.

b. The following records must be maintained for the adjustment and tune up required in condition V.C.1.b for Blast Furnaces No. 1 and No. 3 Stoves: (25 Pa Code §129.99; §2102.04.b.5)

1) The date of the adjustment procedure;
2) The name of the technicians;
3) The operating rate or load after adjustment;
4) The excess oxygen rate after adjustment; and
5) Other information required by the applicable operating permit.

~~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; 25 Pa Code §129.100)

~~5. Reporting Requirements:~~

~~a. The permittee shall report non-compliance information required to be recorded by 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)~~

~~b. Reporting instances of non-compliance in accordance with condition V.B.5.a does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8, if appropriate. (§2103.12.k)~~

6. Work Practice Standard:

a. At no time shall the permittee allow the No. 1 and No. 3 Blast Furnace Stoves to operate unless the subject equipment is properly operated and maintained according to good engineering and air pollution control practices by performing regular maintenance, and as required by condition V.B.4.a, with the exception of actions to mitigate emergency conditions. (RACT Order No. 235, Condition 1.1; 25 Pa Code §129.99; §2102.04.b.5).

b. The permittee shall conduct annual adjustment and tune-up on the blast furnaces No. 1 & No. 3 stove accessible combustion system components to include at a minimum: (25 Pa Code §129.99; §2102.04.b.5); §2105.06.d.2)

1) Inspection, adjustment, cleaning, or replacement of fuel-burning control system equipment, for proper operation as specified by the manufacturer;
2) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacture

~~**7.**~~ ~~**Additional Requirements:**~~

~~None except provided elsewhere.~~

C. Process Equipment Sources

1. Work Practice Standard

a. At no time shall the permittee operate the following equipment at the facility unless they are properly operated and maintained according to good engineering and air pollution control practices by performing regular maintenance with the exception of actions to mitigate emergency conditions. (RACT Order No. 235, Condition 1.1; 25 Pa Code §129.99; §2102.04.b.5)

1) Blast Furnace No. 1 Casthouse
2) Blast Furnace No. 3 Casthouse
3) BFG Flare
4) Basic Oxygen Process (BOP) Shop
5) Ladle Metallurgy Facility (LMF)
6) Dual Strand Caster

b. The permittee shall maintain and operate the BFG flare according to a flare minimization plan that includes (25 Pa Code §129.99; §2102.04.b.5)

1) A listing of all process units and ancillary equipment connected to the flare for each affected flare,
2) A description of the equipment, processes and procedures installed or implemented within the last five years to reduce flaring; and a description of any equipment, processes or procedures the owner or operator plans to install or implement to eliminate or reduce flaring from planned, turnarounds and other scheduled maintenance, based on an evaluation of these activities during the previous five years
3) The facility must follow the flare minimization plan and operate the flare in such a manner that minimizes all flaring except during emergencies, shutdowns, startups, turnarounds or essential operational needs, and
4) The plan should be updated periodically to account for changes in the operation of the flare, such as new connections to the flare or the installation of a flare gas recovery system.

2. Record Keeping Requirements:

a. The permittee shall maintain records of all maintenance performed on the equipment listed in condition V.C.1.a above. These records shall be made available to the Department upon request for inspection and/or copying. (25 Pa Code §129.100; §2102.04.b.5)

Pages 27 and 28 have been redacted.