$PM_{2.5}$ SIP

Appendix L

Permit Conditions

{This page left blank for printing purposes}

Summary of Permit Conditions

This appendix includes redacted portions of installation and operating permits that were referenced in the control strategy in Section 3 of the SIP. The redacted content involves conditions that are not applicable to the emissions reductions used for the future projections for the attainment demonstration. (Consecutive pages of the permits have also been excluded if they contain only redacted content.)

The installation (IP) and operating (OP) permits include the following, by facility listed in the control strategy, in chronological order of issuance:

- IP 0052-I011: USS Clairton C Battery Installation Permit
- IP 0052-I014: USS Clairton 5A and 7A Quench Towers Installation Permit
- OP 0052: USS Clairton Title V Operating Permit
- IP 0054-I004: GenOn Cheswick FGD Installation Permit
- OP 0054: GenOn Cheswick Title V Operating Permit
- IP 0062-I007: ATI Allegheny Ludlum Melt Shop Consolidation Installation Permit
- IP 0062-I008: ATI Allegheny Ludlum HRPF Installation Permit
- IP 0062-I008c: ATI Allegheny Ludlum HRPF Installation Permit (revised)
- IP 0275-I007: McConway & Torley EAF Installation Permit
- IP 0275-I008: McConway & Torley EAF Baghouse Installation Permit
- IP 0275-I011a: McConway & Torley Ladle Preheaters Installation Permit
- IP 0275-I013a: McConway & Torley Baghouse #12 Installation Permit
- IP 0079-I005: Bay Valley (Riverbend) Natural Gas Conversion Installation Permit

Notes:

- The USS Clairton Title V OP is currently under revision and will include all C Battery processes as well as the 5A and 7A Quench Towers in a future version.

- The Cheswick SO_2 emission rate will be revised in a future Title V OP to reflect a limit determined by updated modeling according to the SO_2 2010 NAAQS Data Requirement Rule (Round 3).

- The Cheswick Title V OP did not include the NO_x averaging plan for the GenOn plants. Conditions will be revised in a future permit.

ALLEGHENY COUNTY HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Minor Source/Minor Modification
INSTALLATION PERMIT

Issued To: **U. S. Steel Clairton Works**
400 State Street
Clairton, PA 15025-1855

ACHD Permit#: **0052-I011**

Date of Issuance: July 24, 2008

Expiration Date: (See Section III.12)

Issued By:

Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: **Thomas M. Heron**
Air Quality Engineer

TABLE OF CONTENTS

[redacted]

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

[redacted]

[redacted]

INSTALLATION DESCRIPTION

United States Steel (USS) is proposing two projects that will replace some of the old coke oven batteries with new batteries. In the first project, which is the subject of this Installation Permit, a new C Battery will replace existing Batteries 7 – 9. [redacted]

[redacted]

[redacted]

As part of the C battery Replacement Project, the quench tower now serving Batteries 7 – 9 (Quench Tower 3) will be shut down along with B Battery auxiliary quench tower which will be demolished. A new quench tower (P047) will be installed for C Battery. This new quench tower will have an exit area of 1,406.1 ft^2 and will have a height of 164.2 feet above grade. It will be equipped with Kiro-Nathaus baffles which are more efficient at capturing the entrained water droplets than the baffles in the quench tower currently being used by Batteries 7 – 9. In addition to the new quench tower, the C battery will employ a new quench car to transport the coke from C battery to the new quench tower. The existing B Battery quench tower will serve as the auxiliary tower for quenching the coke from C Battery.

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

[redacted]

B. Process P002: Battery C Quench Tower

Process Description:	Water quenching of incandescent coke
Facility ID:	P047
Max. Design Rate/Units:	1,379,059 tons of coal per year
Capacity:	1,107,384 tons of coke per year
Raw Materials:	Incandescent Coke
Control Device(s):	Two sets of Kiro-Nathaus baffles or their approved equivalents

The permittee is also subject to the following conditions:

1. Restrictions

a. The permittee shall not quench, or allow the quenching of, coke unless the emissions from such quenching are vented through a baffled quench tower and the water used for such quenching is equivalent to, or better than, the water quality standards established for the nearest stream or river by regulations promulgated by the DEP under the Pennsylvania Clean Streams Law, Act of June 22, 1937, PL. 1987, as amended, 35 P.S. 691.1 et seq., except that water from the nearest stream or river may be used for the quenching of coke. The nearest stream or river to the United States Steel Corporation facility in Clairton, PA, shall be the Monongahela River. [§2102.04.b.6; 2105.21.g]

[redacted]

6. Work Practice Standard

a. For each quench tower and each backup quench station, the permittee shall meet each of the following requirements: [§2102.04.b.6; 63.7295(b)]

1) The permittee shall equip each quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky.
2) The permittee shall wash the baffles in each quench tower once each day that the tower is used to quench coke, except as specified in Conditions V.B.6.a.2)i) and V.B.6.a.2)ii) below:
   i) You are not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, the permittee shall resume daily washing according to the schedule in your operation and maintenance plan.
   ii) The permittee shall continuously record the ambient temperature on days that the baffles were not washed.
3) The permittee shall inspect each quench tower monthly for damaged or missing baffles and blockage.
4) The permittee shall initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable.

ALLEGHENY COUNTY
ACHD
HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-Ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Minor Source/Minor Modification
INSTALLATION PERMIT

Issued To: **U. S. Steel Clairton Works**
400 State Street
Clairton, PA 15025-1855

ACHD Permit#: **0052-I014**

Date of Issuance: March 10, 2011

Expiration Date: (See Section III.12)

Issued By: Sandra Etzel
Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: **Hafeez A. Ajenifuja**
Air Quality Engineer

TABLE OF CONTENTS

[redacted]

[redacted]

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

[redacted]

[redacted]

INSTALLATION DESCRIPTION

This permit is for the installation of a two (2) new quench towers (No. 5A and No.7A). These new towers will serve batteries 13-15 (quench tower 5A) and 19-20 (quench tower No 7A) respectively. As part of the quench tower project, alternate/backup quench towers No.6 for batteries 13-15 and No. 8 for batteries No. 19-20 will be shutdown. After the installation of the new quench towers (5A & 7A), tower 5A will serve as the primary quench tower for batteries 13-15, while the current and existing tower 5 will serve as the alternate/backup. Also, tower 7A will serve as the primary quench tower for batteries 19-20, while the current and existing tower 7 will serve as the alternate/backup.

These new quench towers will each have an exit area of 843 ft^2 and will have a height of 164.2 feet above grade. The towers will be taller and will provide more draft than the existing tower for Batteries 13-15 and Batteries 19-20 respectfully. It will also be equipped with dual baffle systems (Kiro-Nathaus baffles) which are more efficient at capturing the entrained water droplets than the single baffle system in the quench towers currently being used by Batteries 13-15 and 19-20.

Incandescent coke, after it is pushed from the ovens, is transported by means of a quench car or hot car to a quench tower. Quenching of coke minimizes it from burning from further exposure to air.

[redacted]

[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Process P001: Quench Tower 5A

Process Description:	Water quenching of incandescent coke
Facility ID:	P051
Max. Design Rate/Units:	1,270,200 tons of coke per year
Capacity:	1,270,200 tons of coke per year
Raw Materials:	Incandescent Coke
Control Device(s):	Baffles or their approved equivalents

The permittee is also subject to the following conditions:

1. Restrictions

a. The permittee shall not quench, or allow the quenching of, coke unless the emissions from such quenching are vented through a baffled quench tower and the water used for such quenching is equivalent to, or better than, the water quality standards established for the nearest stream or river by regulations promulgated by the DEP under the Pennsylvania Clean Streams Law, Act of June 22, 1937, PL. 1987, as amended, 35 P.S. 691.1 et seq., except that water from the nearest stream or river may be used for the quenching of coke. The nearest stream or river to the United States Steel Corporation facility in Clairton, PA, shall be the Monongahela River. [§2102.04.b.6; 2105.21.g]

[redacted]

d. The permittee has demonstrated initial compliance with the constituent limit in Condition V.A.1.b.1)b) or {§63.7295(a)(1)(ii)} above if [§63.7326(c)(2)]:

[redacted]

e. The permittee must comply with each emission limitation, work practice standard, and operation and maintenance requirement in 40 CFR Part 63, Subpart CCCCC that applies to you upon initial startup. [§2102.04.b.6; 63.7283(c)]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

6. Work Practice Standard:

a. The permittee shall meet each of the following requirements for Quench Tower 5A: [§2102.04.b.6; 63.7295(b)]

1) The permittee shall equip the quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky.
2) The permittee shall wash the baffles in the quench tower once each day that the tower is used to quench coke, except as specified in Conditions V.A.6.a.2)i) and V.A.6.a.2)ii) below:

i) You are not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, the permittee shall resume daily washing according to the schedule in the operation and maintenance plan.

ii) The permittee shall continuously record the ambient temperature on days that the baffles were not washed.

3) The permittee shall inspect the quench tower monthly for damaged or missing baffles and blockage.

4) The permittee shall initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable.

[redacted]

[redacted]

[redacted]

[redacted]

B. Process P002: Quench Tower 7A

Process Description:	Water quenching of incandescent coke
Facility ID:	P052
Max. Design Rate/Units:	1,507,710 tons of coke per year
Capacity:	1,507,710 tons of coke per year
Raw Materials:	Incandescent Coke
Control Device(s):	Baffles or their approved equivalents

The permittee is also subject to the following conditions:

1. Restrictions

a. The permittee shall not quench, or allow the quenching of, coke unless the emissions from such quenching are vented through a baffled quench tower and the water used for such quenching is equivalent to, or better than, the water quality standards established for the nearest stream or river by regulations promulgated by the DEP under the Pennsylvania Clean Streams Law, Act of June 22, 1937, PL. 1987, as amended, 35 P.S. 691.1 et seq., except that water from the nearest stream or river may be used for the quenching of coke. The nearest stream or river to the United States Steel Corporation facility in Clairton, PA, shall be the Monongahela River. [§2102.04.b.6; 2105.21.g]

[redacted]

d. The permittee has demonstrated initial compliance with the constituent limit in Condition V.B.1.b.1)b) above or {§63.7295(a)(1)(ii)} if [§63.7326(c)(2)]:

[redacted]

e. The permittee must comply with each emission limitation, work practice standard, and operation and maintenance requirement in 40 CFR Part 63, Subpart CCCCC that applies to you upon initial startup. [§2102.04.b.6; 63.7283(c)]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

6. Work Practice Standard:

a. The permittee shall meet each of the following requirements for Quench Tower 7A: [§2102.04.b.6; 63.7295(b)]

1) The permittee shall equip the quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky.
2) The permittee shall wash the baffles in the quench tower once each day that the tower is used to quench coke, except as specified in Conditions V.B.6.a.2)i) and V.B.6.a.2)ii) below:

    i) You are not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, the permittee shall resume daily washing according to the schedule in the operation and maintenance plan.
    ii) The permittee shall continuously record the ambient temperature on days that the baffles were not washed.
3) The permittee shall inspect the quench tower monthly for damaged or missing baffles and blockage.
4) The permittee shall initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable.

[redacted]

ALLEGHENY COUNTY HEALTH DEPARTMENT

AIR QUALITY PROGRAM

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

Major Source
&
Federally Enforceable State Operating Permit

Issued To:	United States Steel Corporation Mon Valley Works Clairton Plant	**ACHD Permit #:**	0052
Facility:	Clairton Coke Works 400 State Street Clairton, PA 15025-1855	**Date of Issuance:**	March 27, 2012
		Expiration Date:	March 26, 2017
		Renewal Date:	September 27, 2016

Issued By: Sandra L. Etzel
Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: Hafeez A. Ajenifuja
Air Quality Engineer

TABLE OF CONTENTS

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

[redacted]

I. Quench Towers No. 1, 5, 7 and B: P013 & P015 through P017

Process Description: Water quenching of incandescent coke from Batteries No. 1, 2, 3, 13, 14, 15, 19, 20 and B
Facility IDs: P013 & 15 through P017
Raw Materials: Incandescent coke, water
Control Device: Baffles installed in the quench tower to capture entrained water droplets

1. Restrictions:

a. The permittee shall not quench, or allow the quenching of, coke unless the emissions from such quenching are vented through a baffled quench tower and the water used for such quenching is equivalent to, or better than, the water quality standards established for the nearest stream or river by regulations promulgated by the DEP under the Pennsylvania Clean Streams Law, Act of June 22, 1937, PL. 1987, as amended, 35 P.S. 691.1 et seq., except that water from the nearest stream or river may be used for the quenching of coke. The nearest stream or river to the USX Corporation facility in Clairton, PA, shall be the Monongahela River. [§2105.21.g]

[redacted]

6. Work Practice Standards:

a. For quench towers 1,5,7 and B, the permittee shall meet each of the following requirements: [§2103.12.h.6; §63.7295(b)]

1) The permittee shall equip each quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky.
2) The permittee shall wash the baffles in each quench tower once each day that the tower is used to quench coke, except as specified in the following conditions:

a) You are not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, you must resume daily washing according to the schedule in your operation and maintenance plan.
b) You must continuously record the ambient temperature on days that the baffles were not washed.

3) Inspect each quench tower monthly for damaged or missing baffles and blockage.
4) Initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable.

[redacted]

[redacted]

[redacted]

[redacted]

ALLEGHENY COUNTY
ACHD
HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Major Source/Major Modification
INSTALLATION PERMIT

Issued To: **Orion Power Midwest, L.P.**
Cheswick Power Station
Pittsburgh & Porter Streets
Springdale, PA 15144

ACHD Permit#: **0054-I004a**

Date of Issuance: April 2, 2007

Date Amended: April 20, 2010

Expiration Date: (See Section III.12)

Issued By: Sandra Etzel
Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: **David Good**
Air Quality Engineer

TABLE OF CONTENTS

[redacted]

[redacted]

[redacted]

[redacted]

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

[redacted]

INSTALLATION DESCRIPTION

This permit is for the installation of a Flue Gas Desulfurization (FGD) unit on the main boiler at the Cheswick Power Station to reduce sulfur dioxide (SO_2) emissions and allowance consumption for current and anticipated future emission trading program under CAIR. The FGD unit will be a wet limestone scrubber with forced oxidation. The unit will produce wallboard quality synthetic gypsum for commercial use. The installation will include limestone and gypsum handling systems, a gypsum dewatering system, an absorber system, FGD reagent preparation system, FGD wastewater treatment, a 1 MW emergency diesel generator, additional cooling tower capacity and associated equipment and control instrumentation. The estimated SO_2 removal efficiency is 98%. A new reinforced concrete chimney with a single flue will be constructed at the GEP height of 552.5 feet. The FGD and associated materials handling equipment, including the gypsum dewatering and absorber systems, and the emergency diesel generator, are considered new sources with respect to Article XXI §2102.04.

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Flue Gas Desulfurization System:

Process Description:	Main boiler flue gas desulfurization system (FGD)
Max. Design Rate/Units:	1,259,467 dscfm at absorber inlet
Scrubbing Liquid:	Limestone slurry
Byproducts:	Synthetic gypsum

The permittee is also subject to the following conditions:

1. Restrictions

[redacted]

e. Sulfur oxides (SO_X) emissions, expressed as sulfur dioxide, from Stack-001a shall not exceed 1.43 lb/MMBtu on a 12-month rolling average basis. (§2105.03, §2102.04.b.6)

f. The permittee shall operate and maintain the flue gas desulfurization system such that a minimum of three spray levels are operating and maintained at all times while the main boiler is combusting coal or synfuel. (§2105.03; §2102.04)

[redacted]

ALLEGHENY COUNTY HEALTH DEPARTMENT

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

Major Source Operating Permit

Issued To: NRG Power Midwest LP

Facility: Cheswick Generating Station
Pittsburgh & Porter Streets
Springdale, PA 15144

ACHD Permit #: 0054r

Date of Issuance: November 21, 2017

Expiration Date: November 21, 2022

Renewal Date: May 21, 2022

Issued By:
JoAnn Truchan, P.E.
Section Chief, Engineering

Prepared By:
David D. Good
Air Quality Engineer

TABLE OF CONTENTS

[redacted]	[redacted]

EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Main Boiler No. 1, Stack No. 001a

Process Description:	Tangentially-Fired Boiler
Facility ID:	Main Boiler No.1
Maximum Design Rate:	6,000 MMBtu/hr (maximum hourly rating); 5,500 MMBtu/hr (maximum continuous rating) coal and synfuel; 1,028 MMBtu/hr natural gas
Fuel(s):	Coal (primary) or synfuel; Natural gas (auxiliary)
Control Device(s):	Low NOx burners, electrostatic precipitator (ESP) with flue gas conditioning, selective catalytic reduction (SCR) & flue gas desulfurization (FGD)
CEM:	NOx, SO2, CO2 and opacity (COM)

1. Restrictions:

[redacted]

[redacted]

[redacted]

[redacted]

d. Nitrogen oxide (NOX) emissions from the Main Boiler shall not exceed the following: (25 Pa. Code §129.97(g))

1) 0.12 lb/MMBtu, when the inlet temperature to the SCR is equal to or greater than 600 degrees Fahrenheit;
2) 0.35 lb/MMBtu, when the inlet temperature to the SCR is less than 600 degrees Fahrenheit;

[redacted]

[redacted]

[redacted]

ALLEGHENY COUNTY
ACHD
HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Minor Modification
INSTALLATION PERMIT

Issued To: **Allegheny Ludlum Corporation**
100 River Road
Brackenridge, PA 15014

ACHD Permit#: **0059-I007**

Date of Issuance: March 27, 2009

Expiration Date: (See Section III.12)

Issued By:

Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: **Hafeez A. Ajenifuja**
Air Quality Engineer

TABLE OF CONTENTS

[redacted]

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

[redacted]

INSTALLATION DESCRIPTION

Allegheny Ludlum Corporation presently operates two (2) melt shops at the Brackenridge, PA, facility; the Brackenridge melt shop and the Natrona melt shop. The Brackenridge melt shop was upgraded in 2003-2004 with the installation of two (2) new state-of-the-art electric arc furnaces (EAFs). This installation permit includes the consolidation of the two melt shops as part of a Compliance Plan for alleged violations of the Clean Air Act. Products presently produced at the Natrona melt shop will be produced at the Brackenridge melt shop.

As part of the consolidation of the two (2) melt shops, two (2) natural gas-fired ladle preheaters (approximately fifteen million Btu per hour (15 MMBtuh) each), twenty-three (23) natural gas fired mold preheaters (approximately 1 MMBtuh each) and the ladle bubbler, which are presently operated at the Brackenridge melt shop, will be replaced with new equipment.

The two (2) existing ladle preheaters will be replaced with four (4) new ladle preheaters which utilize low NO_x burners, rated at fifteen (15) MMBtu/hr each, exhausting fugitive emissions inside the melt shop building. The twenty-three (23) existing mold preheaters will be replaced with twenty-four (24) new mold preheaters which utilize conventional natural gas burners, rated at two (2) MMBtu/hr each, exhausting fugitive emissions inside the melt shop building. The existing and replacement ladle bubbler exhaust to the argon-oxygen decarburization (AOD)/F1 canopy baghouse where emissions are accounted for with the AOD/F1 canopy baghouse emissions.

The melt shop consolidation results in a net decrease in emissions of PM, PM_{10}, SO_X and VOCs, and a net increase in CO and NO_X emissions for the source.

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

IV. SITE LEVEL TERMS AND CONDITIONS

[redacted]

[redacted]

25. Other requirements

a. The permittee shall permanently shutdown the following Brackenridge and Natrona facilities emission sources by March 31, 2011 [§2102.04.k; §2103.12.d].

1) EIF Scrap Pre-Heaters #1 and #2
2) EIF #41 - #43
3) Hot Metal Desulfurization
4) BOF #71 and #72
5) Koppers BOF Ladle Pre-Heater
6) Cadre Ladle Pre-Heaters
7) BOF Vessel Pre-Heaters
8) BOF Mold Pre-Heaters
9) Two (2) Ladle Pre-Heaters
10) Twenty Three (23) Mold Pre-Heaters

[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Ladle Preheaters

No. of Units	: Four (4)
Maximum Rating	: 15 MMBtu/hr each
Fuel	: Natural Gas Only
Burner Type	: low-NO_x burner
Emission Point	: Fugitive (Inside Building)

The permittee is also subject to the following conditions:

1. Restrictions

[redacted]

b. The permittee shall only combust natural gas fuel. (§2102.04.b.6)

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

B. Mold Preheaters

No. of Units	: Twenty-four (24)
Maximum Rating	: 2.0 MMBtu/h each
Fuel	: Natural Gas
Burner Type	: Conventional
Emission Point	: Fugitive (Inside Building)

The permittee is also subject to the following conditions:

1. Restrictions

[redacted]

b. The permittee shall only combust natural gas fuel (§2102.04.b.6).

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

ALLEGHENY COUNTY HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-Ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

New Source Review/Prevention of Significant Deterioration
INSTALLATION PERMIT

Issued To: **Allegheny Ludlum Corporation**
100 River Road
Brackenridge, PA 15014-1597

ACHD Permit#: **0059-I008**

Date of Issuance: February 16, 2010

Expiration Date: (See Section III.12)

Issued By: Sandra Etzel
Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: **Trish Earls**
Air Quality Engineer

TABLE OF CONTENTS

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

[redacted]

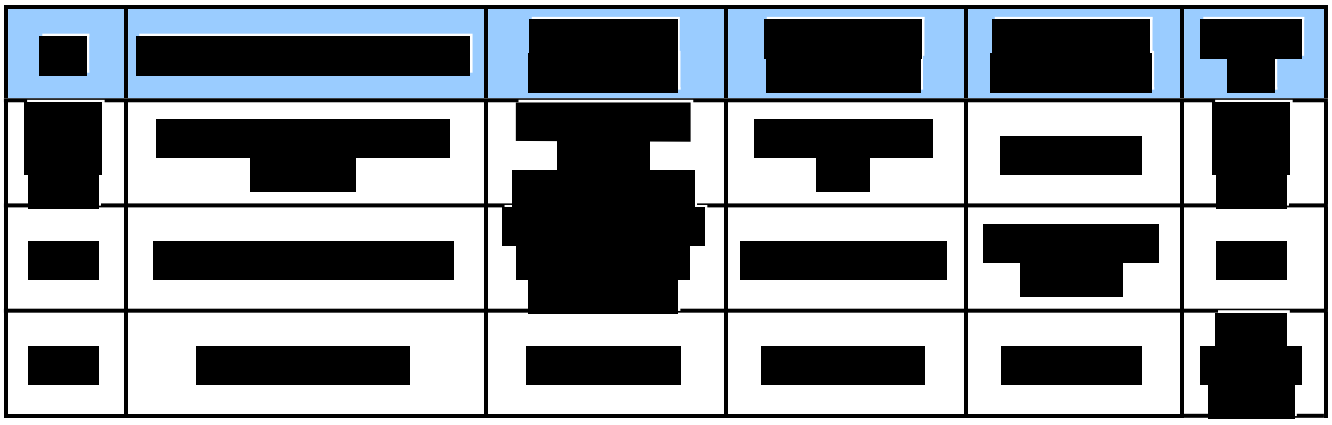
[redacted]

[redacted]

INSTALLATION DESCRIPTION

This permit is for the installation of a new Hot Rolling Processing Facility (HRPF) at the Brackenridge Plant capable of processing up to 4,000,000 tons of specialty products annually. The new facility will process ingots and slabs. In general, major components will include hot rolling equipment (e.g., Roughing Mill and 7-Stand Hot Finishing Mill), natural gas-fired equipment (e.g., furnaces, hot box and heat panels), grinders and torch cutters. Support equipment will include cooling towers, emergency fire pump and emergency generators. The new equipment will replace older furnaces, hot rolling mills, grinders and torch cutters which will be shut down as part of the project. As part of a separate project (Melt Shop Consolidation Project), emission units at ALC's Natrona Plant located on the eastern portion of the property will also be shut down.

[redacted]



ALLEGHENY COUNTY HEALTH DEPARTMENT

AIR QUALITY PROGRAM
301 39th Street, Bldg. #7
Pittsburgh, PA 15201-1811

Minor Source/Minor Modification INSTALLATION PERMIT

Issued To: **ATI Flat Rolled Products Holdings, LLC**
100 River Road
Brackenridge, PA 15014-1597

ACHD Permit#: **0059-I008c**

Date of Issuance: February 16, 2010
Date of Modification: October 15, 2018

Expiration Date: (See Section III.12)

Issued By: _____
JoAnn Truchan, P.E.
Section Chief, Engineering

Prepared By: _____
Michael Dorman
Air Quality Engineer

TABLE OF CONTENTS

II. FACILITY DESCRIPTION

[redacted]

[redacted]

[redacted]

[redacted]

INSTALLATION DESCRIPTION

This permit modifies of the installation permit for the new Hot Rolling Processing Facility (HRPF) at the Brackenridge Plant. Its purpose is to correct the previous Installation Permit by identifying the "as-built" emissions sources installed at this facility. The initial Installation Permit identified all sources proposed for installation. This Installation Permit identifies the sources that were actually installed. This group of emissions sources is smaller than the proposed group of emissions sources.

The following sources permitted in Installation Permit No. 0059-I008 were not installed:

1. Active Heat Panels (Capacity: 60 MMBtu/hr);
2. One (1) of the original three (3) Walking Beam Furnaces (Capacity: 465 MMBtu/hr);
3. Emergency Generator #2 (Capacity: 1000 kw, 1,340 hp)
4. Emergency Generator #3 (Capacity: 500 kw, 670 hp);
5. Emergency Generator #4 (Capacity: 500 kw, 670 hp); and
6. Diesel Fire Pump (Capacity: 216 hp).
7. Four (4) Annealing Furnaces (Capacity: 21 MMBtu/hr each);
8. Two (2) Soaking Pits: (Capacity: 23 MMBtu/hr each);
9. One (1) of the original two (2) Slab Grinders;
10. Torch Cutting Operation: (Capacity: 6 MMBtu/hr); and
11. Abrasive Saw (Capacity: 75,000 tons/yr)

[redacted]

[redacted]

IV. SITE LEVEL TERMS AND CONDITIONS

[redacted]

[redacted]

[redacted] [redacted]

[redacted] [redacted]

[redacted]

[redacted]		[redacted]	[redacted]	[redacted]
	[redacted]			
[redacted]	[redacted]	[redacted]		[redacted]
	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]		[redacted]
[redacted]		[redacted]	[redacted]	[redacted]

[redacted] [redacted]

20. Shutdown of Emission Units

a. Internal emissions reductions will be generated if the following units are permanently shut down by the permittee prior to startup of the emission units in Table IV-1 above: (§2102.06.b.4; §2102.08)

1) Salem Reheat Furnace;
2) Rust Reheat Furnace;
3) Hot Strip Universal Mill;
4) Hot Strip Finishing Mill;
5) Slab Grinders #15, #16, #18 - #22;

b. The following units were permanently shut down by the permittee as a result of the Melt Shop Consolidation project on or before March 31, 2011: (§2102.04.k)

1) 8-7 Facility (Natrona plant) which included EIF Scrap Preheater #1, EIF Scrap Preheater #2, EIFs #41 - #43, Hot Metal Desulfurization, BOFs #71 and #72, Koppers BOF Ladle Preheater, Cadre Ladle Preheaters, BOF Vessel Preheaters, and BOF Mold Preheaters; and

2) 8/3 Ladle and Mold Preheaters which included two (2) Ladle Preheaters @ 15 MMBtu/hr each and twenty three (23) Mold Preheaters @ 1 MMBtu/hr each.

[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Process P-001: Two (2) Walking Beam Furnaces

Process Description: Two (2) Walking Beam Reheat Furnaces
Facility ID: P-001
Max. Design Rate/Units: 465 MMBtu/hr per furnace
Raw Materials: Natural Gas
Control Device: Ultra low NO_X burners on each furnace

1. Restrictions:

a. Each Walking Beam furnace shall only fire pipeline quality natural gas. (§2103.12.a.2.D, IP No. 0059-I008b)

[redacted]

B. Process P-002: Reversing Roughing Mill

Process Description: Reversing Roughing Mill
Facility ID: P-002
Capacity: 4,500,000 tons of steel per year
Raw Materials: Specialty Steel Products
Control Device: Wet Electrostatic Precipitator

1. Restrictions

a. Emissions of PM, PM_{10} and $PM_{2.5}$ shall be controlled by a wet ESP. (§2102.04.b.6)

[redacted]

C. Process P-003: 7-Stand Hot Finishing Mill

Process Description: 7-Stand Hot Finishing Mill
Facility ID: P-003
Capacity: 4,000,000 tons/yr
Raw Materials: Specialty Steel Products
Control Device: Two (2) Wet Electrostatic Precipitators

1. Restrictions

a. Emissions of PM, PM_{10} and $PM_{2.5}$ shall be controlled by two (2) wet ESPs. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

D. Process P-004: Three Active Hot Boxes

Process Description: Active Hot Boxes
Facility ID: P-004
Max. Design Rate/Units: 10 MMBtu/hr each
Raw Materials: Natural Gas
Control Device(s): Ultra low NO_X burners

1. Restrictions

a. The Active Hot Boxes shall only fire pipeline quality natural gas. (§2102.04.b.6, §2102.05, §2102.06.b.1, §2102.07)

[redacted]

E. Process P-005: Four (4) Car Bottom Furnaces

Process Description: Four (4) Car Bottom Furnaces
Facility ID: P-005
Max. Design Rate/Units: 21.2 MMBtu/hr per furnace
Raw Materials: Natural Gas
Control Device(s): Ultra low NO_X burners on each furnace

1. Restrictions

a. The four (4) Car Bottom furnaces shall only fire pipeline quality natural gas. (§2102.04.b.6, §2102.05, §2102.06.b.1, §2102.07)

[redacted]

F. Process P-006: Slab Grinder

Process Description: One (1) Slab Grinder
Facility ID: P-006
Capacity: 200,000 tons/yr
Raw Materials: Specialty Steel Products, Slabs
Control Device: One (1) Baghouse C-218

1. Restrictions

a. Emissions of PM, PM_{10} and $PM_{2.5}$ from the slab grinder shall be controlled at all times during operation by a baghouse. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

G. Process P-007: Plasma Torch Cutting Operation

Process Description: Plasma Torch Cutting Operation
Facility ID: P-007
Capacity: 30,000 tons/yr
Raw Materials: Specialty Steel Products
Control Device: Baghouse

1. Restrictions

[redacted]

[redacted]

c. Emissions of PM, PM_{10} and $PM_{2.5}$ from the Plasma Torch Cutting operation shall be controlled by a baghouse. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

H. Process P-008: One (1) Emergency Generator

Process Description: One (1) Emergency Generator
Facility ID: EG-001
Max. Design Rate/Units: 2,250 kW (3,015 hp)
Raw Materials: Diesel Fuel
Control Device(s): Uncontrolled

1. Restrictions

a. The operation of the emergency generator shall be limited to two hundred (200) hours per twelve (12) consecutive month period during those times when power supplied by a public utility is unavailable. (§2102.04.b.6, §2102.05, §2102.06.b.1, §2102.07)

I. <u>Process P-009:</u> Three (3) Cooling Towers

Process Description: Three (3) cooling towers
Facility ID: CT-001, CT-002 and CT-003
Max. Capacity: 34,500 gpm (CT-001)
60,000 gpm (CT-002)
48,500 gpm (CT-003)
Raw Materials: Cooling Water
Control Device(s): Drift eliminators

1. Restrictions

a. Emissions of PM, PM_{10} and $PM_{2.5}$ from each of the cooling towers shall be controlled by drift eliminators. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

ALLEGHENY COUNTY
ACHD
HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Synthetic Minor Source/Minor Modification
INSTALLATION PERMIT

Issued To:	**McConway & Torley Corporation** 109 48th Street Pittsburgh, PA 15201-2755	**ACHD Permit#:**	**0275-I007**
		Date of Issuance:	January 21, 2011
		Expiration Date:	(See Section III.12)

Issued By: Sandra L. Etzel
Sandra L. Etzel
Air Pollution Control Manager

Prepared By: David D. Good
David D. Good
Air Pollution Control Engineer II

TABLE OF CONTENTS

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

This installation permit is for the addition of a new electric arc furnace [upgrade and reactivation of existing, previously permitted electric arc furnace for steel melting]. McConway and Torley currently operate one permitted electric arc furnace and wish to reactivate a Lectromelt OT furnace. The production limit of the combined sources will remain that of the currently permitted synthetic minor limit of the existing electric arc furnace.

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Process P001-6 : New Electric Arc Furnace

Process Description:	**Electric Arc Furnace**
Facility ID:	**Electric Arc Melting "C" Furnace # 3**
Max. Design Rate/Units:	**13.33 tons/hr; 116,800 tons/yr of steel melted**
Synthetic Minor Limit:	**92,500 tons/yr of steel melted**
Raw Materials:	**Scrap steel, various melting additives, slagging agents**
Control Device:	**Canopy Hood, Side Draft Hood, 2 Baghouses - Beltech Engineering Dust Collectors; Pulse-Jet, 1 compartment each, negative pressure with 1 stack each.**

1. Restrictions

a. The permittee shall not cause to be discharged into the atmosphere from EAF #3 any gases which (§63.10895a):

[redacted]

4) Exit from a control device and contain particulate matter in excess of 0.0022 gr/dscf. (§2102.04.b.6)

[redacted]

c. The permittee shall at no time conduct EAF #3 process operations unless the EAF #3 Baghouses are both operating and are properly maintained and operated according to the following conditions: (§2102.04.b.6)

1) The EAF shall be equipped with a canopy hood and a side-draft hood for collection of process emissions, and such hoods shall be properly maintained and operated at all times with all emissions ducted to the EAF #3 Baghouses.
2) The particulate control efficiency of the baghouses shall be a minimum of 99.9 percent at all times while the subject process equipment is producing particulate emissions.

ALLEGHENY COUNTY
ACHD
HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Synthetic Minor Source/Minor Modification
INSTALLATION PERMIT

Issued To: **McConway & Torley LLC**
109 48th Street
Pittsburgh, PA 15201-2755

ACHD Permit#: **0275-I008**

Date of Issuance: August 22, 2013

Expiration Date: (See Section III.12)

Issued By: _____
Sandra L. Etzel
Air Pollution Control Manager

Prepared By: **David D. Good**
Air Pollution Control Engineer

TABLE OF CONTENTS

[redacted]

[redacted] *N*

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

This installation permit is for a new pollution control device on electric arc furnace no. 1 (EAF #1). McConway and Torley currently operates two electric arc furnaces and wishes to upgrade the capture hood and baghouse on EAF #1 to more effectively capture and control the stack and fugitive emissions of PM, PM_{10} $PM_{2.5}$, and metal HAPs. The production limit of the combined EAF #1 and EAF #2 will remain that of the currently permitted synthetic minor limit.

[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Electric Arc Furnace #1 Baghouse

Process Description: **Electric Arc Furnace**
Facility ID: **EAF #1, BH #11**
Max. Design Rate/Units: **13.33 tons/hr; 116,800 tons/yr of steel melted**
Synthetic Minor Limit: **92,500 tons/yr of steel melted**
Raw Materials: **Scrap steel, various melting additives, slagging agents**
Control Device: **Canopy Hood, Side Draft Hood, 1 Baghouse {Four (4) Module, 304 filter bags per Module; negative pressure, high energy pulse jet} with one (1) stack**

1. Restrictions

[redacted]

d. The permittee shall not discharge to the atmosphere emissions from a EAF #1 Baghouse that contain particulate matter in excess of 0.0022 gr/dscf; and [§2102.04.b.6]

[redacted]

f. The permittee shall at no time conduct EAF #1 process operations unless the EAF #1 Baghouse and capture system is operating and is properly maintained and operated according to the following conditions: [§2102.04.b.6, §63.10895(b)]

1) The EAF shall be equipped with a canopy hood and a side-draft hood for collection of process emissions that capture 99.5 percent of emissions, and such hoods shall be properly maintained and operated at all times with all emissions ducted to the EAF #1 Baghouse. [§2102.04.b.6]

2) The particulate control efficiency of the baghouse shall be a minimum of 99.5 percent at all times while the subject process equipment is producing particulate emissions. [§2102.04.b.6]

ALLEGHENY COUNTY
ACHD
HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Synthetic Minor Source/Minor Modification
INSTALLATION PERMIT

Issued To: **McConway & Torley, LLC**
109 48th Street
Pittsburgh, PA 15201-2755

ACHD Permit#:	**0275-I011a**
Date of Issuance:	February 29, 2016
Date Amended:	August 31, 2017
Expiration Date:	(See Section III.12)

Issued By:
JoAnn Truchan, P.E.
Section Chief, Engineering

Prepared By:
David D. Good
Air Pollution Control Engineer

TABLE OF CONTENTS

[redacted]

[redacted]

[redacted]

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

This installation permit is for the replacement of the two existing 1.2 MMBTU/hr conventional ladle preheater burners with two 3.5 MMBTU/hr oxy-fuel ladle preheater burners.

[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Process P001-2: Ladle Preheaters

Process Description: Two 3.5 MMBTU/hr Oxy-Zipper Burners
Facility ID: Ladle Preheaters
Max. Design Rate/Units: 3.5 MMBTU/hr
Raw Materials: Oxy-Fuel (natural gas, oxygen)
Control Device: None

The permittee is also subject to the following conditions:

1. Restrictions

[redacted]

b. At no time shall the permittee operate the Ladle Preheaters using any fuel other than oxy-fuel (natural gas and oxygen). (§2103.12.h.1)

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

ALLEGHENY COUNTY
ACHD
HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Synthetic Minor Source/Minor Modification
INSTALLATION PERMIT

Issued To: **McConway & Torley LLC**
109 48th Street
Pittsburgh, PA 15201-2755

ACHD Permit#: **0275-I013a**

Date of Issuance: February 29, 2016

Date Amended: August 31, 2017

Expiration Date: (See Section III.12)

Issued By:
JoAnn Truchan, P.E.
Section Chief, Engineering

Prepared By:
David D. Good
Air Pollution Control Engineer

TABLE OF CONTENTS

[redacted]

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

This installation permit is for the replacement of baghouse nos. 5 and. 8 with a single baghouse dust collector, installing new sand reclamation equipment (10 ton/hr vibra-mill and two rotary reclaimers), adding two (2) sand silos of 15 ton capacity each, and adding several collection hoods and ducts associated with the mold making equipment, mold punchout/shakeout and casting conveying system. There are no increases in potential emissions due to these installations.

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Process P003-1, P003-4: Mold Making System and Sand Handling/Preparation

Process Description: Mold Making System, Sand Handling/Preparation
Facility ID: P003-1, P003-4
Max. Design Rate/Units: 105 tons/hour sand
Raw Materials: Mold sand
Control Device: Baghouse #12 for Sand Handling/Preparation

The permittee is also subject to the following conditions:

1. Restrictions

[redacted]

[redacted]

c. The emissions from the Mold Making and Sand Handling and Preparation System(s) shall be directed to Baghouse No. 12 at all times during operation of the Mold Making or Sand Handling equipment. In addition, the permittee shall operate Baghouse No. 12 in a manner demonstrating negative air pressure in the main foundry building during any Melting, Pouring, Cooling, Shakeout, or Sand Reclaim operations. (§2103.12.a.2.D)

d. The concentration of filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

B. Process P003-2: Casting Shakeout

Process Description: Shakeout
Process Components: Shakeout system table
Max. Design Rate: 105 tons/hour of sand
Raw Materials: Sand
Control Device: Baghouse #12

1. Restrictions

[redacted]

[redacted]

c. The emissions from the Shakeout process shall be directed to Baghouse No. 12 at all times during operation of the Shakeout equipment. In addition, the permittee shall operate Baghouse No. 12 in a manner demonstrating negative air pressure in the main foundry building during any Melting, Pouring, Cooling, Mold Making, Sand Handling, or Sand Reclaim operations. (§2103.12.a.2.D)

d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

C. Process P003-3a: Sand Reclaim Cooler/Classifier (existing)

Process Description: Sand Reclaim Systems
Process Components: Existing cooler/classifier
Max. Design Rate: 105 tons/hour of sand (entire system)
Raw Materials: Processed Sand
Control Device: Baghouse #12

1. Restrictions

[redacted]

[redacted]

c. The emissions from the Sand Reclaim Cooler/Classifier shall be directed to Baghouse No. 12 at all times during operation of the Sand Reclaim Cooler/Classifier equipment. In addition, the permittee shall operate Baghouse No. 12 in a manner demonstrating negative air pressure in the main foundry building during any Melting, Pouring, Cooling, Shakeout, Mold Making or Sand Handling operations.. (§2103.12.a.2.D)

d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

D. Process P003-3b: Sand Reclaim Vibra-Mill (new)

Process Description: Sand Reclaim Vibra-Mill
Process Components: New Vibra-Mill
Max. Design Rate: 10 tons/hour of sand
Raw Materials: Processed Sand
Control Device: Baghouse #12

1. Restrictions

[redacted]

[redacted]

c. The emissions from the Sand Reclaim Vibra Mill shall be directed to Baghouse No. 12 at all times during operation of the Sand Reclaim Vibra Mill. In addition, the permittee shall operate Baghouse No. 12 in a manner demonstrating negative air pressure in the main foundry building during any Melting, Pouring, Cooling, Shakeout, Mold Making, Sand Handling or Sand Reclaim operations. (§2103.12.a.2.D)

d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

E. Process P003-3c: Sand Reclaim Rotary Reclaimer (new)

Process Description: New Sand Reclaim Rotary Reclaimer
Process Components: Two (2) Rotary Reclaimers
Max. Design Rate: 75 hp, 230/460 motor
Raw Materials: Processed Sand
Control Device: Baghouse #12

1. Restrictions

[redacted]

[redacted]

c. The emissions from the Sand Reclaim Rotary Reclaimer process shall be directed to Baghouse No. 12 at all times during operation of the Sand Reclaim Rotary Reclaimer. In addition, the permittee shall operate Baghouse No. 12 in a manner demonstrating negative air pressure in the main foundry building during any Melting, Pouring, Cooling, Shakeout, Mold Making, Sand Handling or Sand Reclaim operations. (§2103.12.a.2.D)

d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

F. Process P003-5: Sand Storage with Sand Lifters

Process Description: Two (2) 15 ton Intermediate Sand Storage Silos
Facility ID: Sand Storage
Max. Design Rate/Units: 15 tons
Raw Materials: Sand
Control Device: Baghouse No. 12

1. Restrictions

[redacted]

b. The Sand Storage silos shall exhaust to Baghouse No. 12 at all times and the particulate matter emissions exiting Baghouse No. 12 shall not exceed of 0.0022 grains/dscf at any time. (§2102.04.b.6, §2105.03)

[redacted]

ALLEGHENY COUNTY HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 Thirty-Ninth Street, Bldg. #7
Pittsburgh, PA 15201-1811

Major Source/Minor Modification
INSTALLATION PERMIT

Issued To: **Bay Valley Foods, LLC**
1080 River Avenue
Pittsburgh, PA 15212-5995

ACHD Permit#: **0079-I005**

Date of Issuance: April 6, 2015

Expiration Date: (See Section III.12)

Issued By: _____
Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: **JoAnn Truchan, P.E.**
Air Quality Engineer

TABLE OF CONTENTS

[redacted]

II. FACILITY AND INSTALLATION DESCRIPTION

[redacted]

[redacted]

[redacted]

INSTALLATION DESCRIPTION

This permit is for the conversion of the No. 2 Boiler to natural gas combustion. The new arrangement will have low-NO_X burners. As part of the conversion of all boilers at the facility to all natural gas, all coal equipment will be removed, and the spray dryer absorber control systems and associated continuous emissions monitoring systems (CEMS) for SO_X, NO_X, and opacity installed under Installation Permit #0079-I003 (issued October 10, 2008) will no longer be in service. Because the existing gas burners for Boilers No. 1, No. 3, and No. 4 operate at a lower heat rating than the coal burners, this permit will also limit the rating for those boilers. There will be no change to the operation of the No. 8 Zurn Boiler.

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Boiler B001: No. 1 CE Boiler

Process Description: (former) traveling grate boiler
Facility ID: No. 1 CE Boiler
Capacity: 75 MMBtu/hr
Fuel: natural gas
Control Device: none

1. Restrictions

a. At no time shall the permittee operate the No. 1 Boiler using any fuel other than utility-grade natural gas. [§2102.04.b.6; §2102.04.e]

[redacted]

B. Boiler B002: No. 2 CE Boiler

Process Description: (former) traveling grate boiler
Facility ID: No. 2 CE Boiler
Capacity: 91 MMBtu/hr
Fuel: natural gas
Control Device: low-NO_X burners

1. Restrictions

a. At no time shall the permittee operate the No. 2 Boiler using any fuel other than utility-grade natural gas. [§2102.04.b.6; §2102.04.e]

[redacted]

C. Boilers B003 and B004: No. 3 & No. 4 B&W Boilers

Process Description: (former) traveling grate boilers
Facility ID: No. 3 B&W Boiler; No. 4 B&W Boiler
Capacity: 42.2 MMBtu/hr, each
Fuel: natural gas
Control Device: none

1. Restrictions

a. At no time shall the permittee operate the boilers using any fuel other than utility-grade natural gas. [§2102.04.b.6; §2102.04.e]

[redacted]