



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

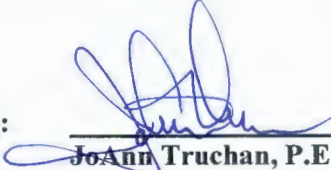
**Federally Enforceable Installation Permit**  
**For 1-Hour SO<sub>2</sub> NAAQS**

**Issued To:** **Braddock Recovery, Inc.**  
**A Subsidiary of Harsco Corp.**  
1300 Braddock Avenue  
Braddock, PA 15104

**ACHD Permit#:** **0265-I001**

**Date of Issuance:** September 14, 2017

**Expiration Date:** (See Section III.12)

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

**Prepared By:**   
**Hafez Ajenifuja**  
**Air Quality Engineer**

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### *AMENDMENTS:*

<i>DATE</i>	<i>SECTION(S)</i>
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## I. CONTACT INFORMATION

**Facility Location:** **Braddock Recovery, Inc.**  
1300 Braddock Avenue  
Braddock, PA 15104

**Permittee/Owner:** **Braddock Recovery, Inc., a Subsidiary of Harsco Corp.**  
300 Seven Fields Blvd  
Seven Fields, PA 16046

**Responsible Official:** **Glenn Hundertmark**  
**Title:** Manager, Environmental Control  
**Company:** Harsco Corporation  
**Address:** 300 Seven Fields Blvd, Suite 300  
Seven Fields, PA 16046

**Telephone Number:** (724) 741-6662  
**Fax Number:** (724) 741-6696  
**E-mail Address:** [ghundertmark@harsco.com](mailto:ghundertmark@harsco.com)

**Facility Contact:** **Michael Buvalla**  
**Title:** Plant Manager  
**Telephone Number:** (412) 351-5420  
**Fax Number:** (724) 741-6696  
**E-mail Address:** [mbuvalla@harsco.com](mailto:mbuvalla@harsco.com)

### AGENCY ADDRESSES:

**ACHD Contact:** **Chief Engineer**  
**Allegheny County Health Department**  
Air Quality Program  
301 39th Street, Building #7  
Pittsburgh, PA 15201-1811

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

## II. FACILITY DESCRIPTION

### FACILITY DESCRIPTION

Braddock Recovery, Inc. (Braddock Recovery), a subsidiary of Harsco Corporation, is located on the U. S. Steel Edgar Thomson site. This facility receives by-products from U. S. Steel, including furnace flue dust, slag and sludge, mill scale, and coke fines, dries them in a rotary kiln fired with coke oven gas, combines them with lime, cement, sodium silicate, water, bentonite and molasses in a wet mixing process in two pugmills, and forms the moist mix into briquettes. These finished briquettes are piled on-site with a radial stacker and then loaded onto railcars and sent back to U. S. Steel Edgar Thomson to be used in the furnaces. The raw materials are loaded into the first stage of the process with a front-end loader. The front-end loader loads finished briquettes onto a conveyor and then into the railcars. Materials are moved through the entire process by a series of conveyors. The rotary kiln is controlled by a cyclone and a fabric filter. The particulate removed with these control devices is sent back to screw conveyor (S008). A vibrating screen is used just after the kiln to remove particles that are too large. Another vibrating screen is used at the end of the process to separate fine particles from the finished briquettes. These fines are then re-directed via conveyor to the mixers. The front-end loader loads finished briquettes onto a conveyor and then into the railcars. There are paved roadways and storage piles on-site. Fugitive particulate emissions from the storage piles are controlled by watering. Fugitive particulate emissions from the unpaved roadways are controlled with watering for dust control. Most operations occur in enclosed spaces.

The facility, which is located in Braddock, Pennsylvania, is a minor source of all criteria pollutants and Hazardous Air Pollutant (HAPs), as defined in Section 2101.20 of Article XXI. However, the facility is considered a major source based on operating, managing or supporting the U. S. Steel Edgar Thomson Plant “Waste Product Recycling and Briquetting Process.

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

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

I.D.	SOURCE DESCRIPTION	SO <sub>2</sub> CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
P005	Rotary Kiln Dryer	NA	50 tons/hr	Sludge, Mill Scale, Coke Breeze, Flue Dust, Coke Oven Gas	Stack 01

*DECLARATION OF POLICY*

[REDACTED]

[REDACTED]

**III. GENERAL CONDITIONS**

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**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 III.4 above.
- d. Semiannual reports required by this permit shall be submitted to the Department as follows:
  - 1) One semiannual report is due by July 31 of each year for the time period beginning January 1 and ending June 30.
  - 2) One semiannual report is due by February 1 of each year for the time period beginning July 1 and ending December 31.
- e. Reports may be emailed to the Department at [aqreports@alleghenycounty.us](mailto:aqreports@alleghenycounty.us) in lieu of mailing a hard copy.

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#### IV. SITE LEVEL TERMS AND CONDITIONS

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a. Are visible at or beyond the property line;

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

**A. Process P005: Rotary Dryer**

Process Description: Rotary Kiln Dryer  
 Facility ID: S004  
 Max. Design Rate/Units: 24.59 MMBTU/hr  
 Fuel: Coke Oven Gas  
 Raw Materials: Briquettes for Blast Furnace and BOP Shop  
 Control Device(s): One (1) Cyclone and One (1) Baghouse

**1. Restrictions**

- a. Emissions of SO<sub>2</sub> from the rotary kiln (S004) shall not exceed the emissions limitations in Table V-A-1 below. [§2102.04.b.6, §2105.21.h-4]

**TABLE V-A-1: Rotary Kiln Emission Limitations**

POLLUTANT	Hourly Emission Limit (lbs/hr)	Annual Emission Limit (tons/year)*
SO <sub>2</sub>	1.80	7.88

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

**2. Testing Requirements**

- a. Emissions of SO<sub>2</sub> shall be determined by stack testing or converting the H<sub>2</sub>S concentration (grains/100 dscf) of the fuel burned and the fuel flow rate, to pounds per hour of SO<sub>2</sub>. [§2102.04.b.6; §2103.12.h]
- 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 §2108.02. [§2103.12.h.1]

**3. Monitoring Requirements**

The permittee may determine the hourly H<sub>2</sub>S concentrations (grains/100 dscf) of the fuel burned, or the permittee may obtain the hourly H<sub>2</sub>S concentrations from U.S. Steel. [§2103.12.i]

**4. Record Keeping Requirements**

- a. The permittee shall keep records of hourly fuel use and hourly H<sub>2</sub>S concentration (grains/100 dscf) to be used for SO<sub>2</sub> emission calculations. [§2103.12.j]
- 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. [§2102.04.b.6; §2103.12.j]



**5. Reporting Requirements**

- a. The permittee shall report all instances of non-compliance with the conditions of this permit along with all corrective action taken to restore the subject equipment to compliance to the Department semiannually in accordance with General Condition III.15.d. [§2103.12.k]
- 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.8, if appropriate. [§2103.12.k]

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