



10-00001

AK STEEL CORP/BUTLER WORKS



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date: January 29, 2019

Effective Date: February 25, 2020

Revision Date: February 25, 2020

Expiration Date: [REDACTED]

Revision Type: Modification, Significant

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

TITLE V Permit No: 10-00001

Federal Tax Id - Plant Code: 31-1401455-3

Owner Information

Name: AK STEEL CORP
Mailing Address: PO BOX 832
BUTLER, PA 16003-0832

Plant Information

Plant: AK STEEL CORP/BUTLER WORKS
Location: 10 Butler County 10909 Butler Township
SIC Code: 3312 Manufacturing - Blast Furnaces And Steel Mills

Responsible Official

Name: AARON STEINHEISER
Title: GENERAL MGR - OPERATIONS
Phone: (724) 284 - 2209

Permit Contact Person

Name: FRANK MONTELEONE
Title: ENVIRONMENTAL AFFAIRS MGR
Phone: (724) 284 - 3367

[Signature]


ERIC A. GUSTAFSON, NORTHWEST REGION AIR PROGRAM MANAGER



Pages 2-62, 69-73, 78, 89-120, 123-124, 127-133, 136, 141-144, 148-213, 216, 218-238, and 244-272 are redacted entirely.

**SECTION D: Source Level Requirements**

Source ID: 101

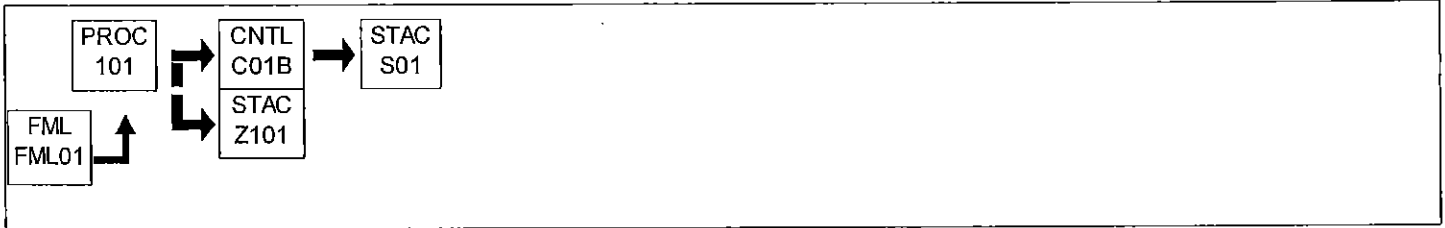
Source Name: ELECTRIC ARC FURNACE 5

Source Capacity/Throughput:

STEEL

#3 BAGHOUSE

RACT II - CASE BY CASE

**I. RESTRICTIONS.****Emission Restriction(s).**

001

Alternative RACT proposal and petition for alternative compliance schedule.

In accordance with 25 Pa. Code §129.99 Alternative RACT proposal (RACT II), the electric arc furnace shall be equipped with oxy-fuel burner/combustion technology.

**SECTION D: Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

005 [REDACTED]

Plan approval terms and conditions.

[Plan Approval 10-001O]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

(a) A copy of the Scrap Pollution Prevention Plan shall be kept on site and made available to the Department upon request.

(b) A record the type and condition of scrap added to each batch of steel produced shall be kept on site for a period of five years and made available to the Department upon request.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 10-001O]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the Alternative RACT proposal (RACT II).

(a) The permittee shall maintain monthly records of tons of liquid steel produced from the #5 EAF as a 12-month rolling total.

(b) The permittee shall maintain on a daily basis consecutive records of liquid steel produced from the #5 EAF in a 24 hour block.

(c) The records shall kept on site and made available to the Department upon request.

VI. WORK PRACTICE REQUIREMENTS.

**SECTION D: Source Level Requirements**

010 [REDACTED]

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall implement the Scrap Pollution Prevention Plan as approved by the Department, to prevent the charging of any scrap into the furnace that is heavily oiled or contains a large amount of combustible, nonmetallic, or rubber materials to control VOC emissions.

014 [REDACTED]

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall install, operate, and maintain the No. 5 EAF in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

**SECTION D: Source Level Requirements**

Source ID: 102

Source Name: ELECTRIC ARC FURNACE 2

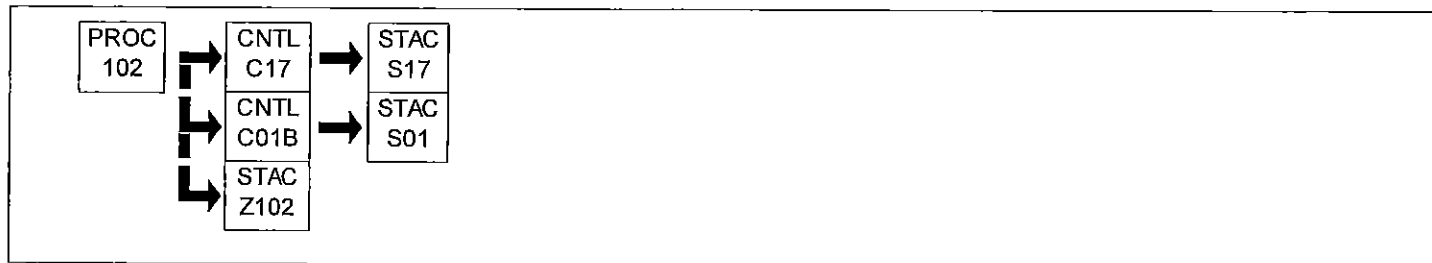
Source Capacity/Throughput:

STEEL

#1/2 BAGHOUSE

#3 BAGHOUSE

RACT II - CASE BY CASE



**SECTION D - Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

003 [REDACTED]

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

A copy of the Scrap Pollution Prevention Plan shall be kept on site and made available to the Department upon request.

A record of the type and condition of scrap added to each batch of steel produced shall be kept on site for a period of five years and made available to the Department upon request.

005 [REDACTED]

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

- (a) The permittee shall maintain monthly records of tons of liquid steel produced from the #2 EAF as a 12-month rolling total.
- (b) The permittee shall maintain on a daily basis consecutive records of liquid steel produced from the #2 EAF in a 24 hour block.
- (c) The records shall kept on site and made available to the Department upon request.

VI. WORK PRACTICE REQUIREMENTS.

007 [REDACTED]

Plan approval terms and conditions.

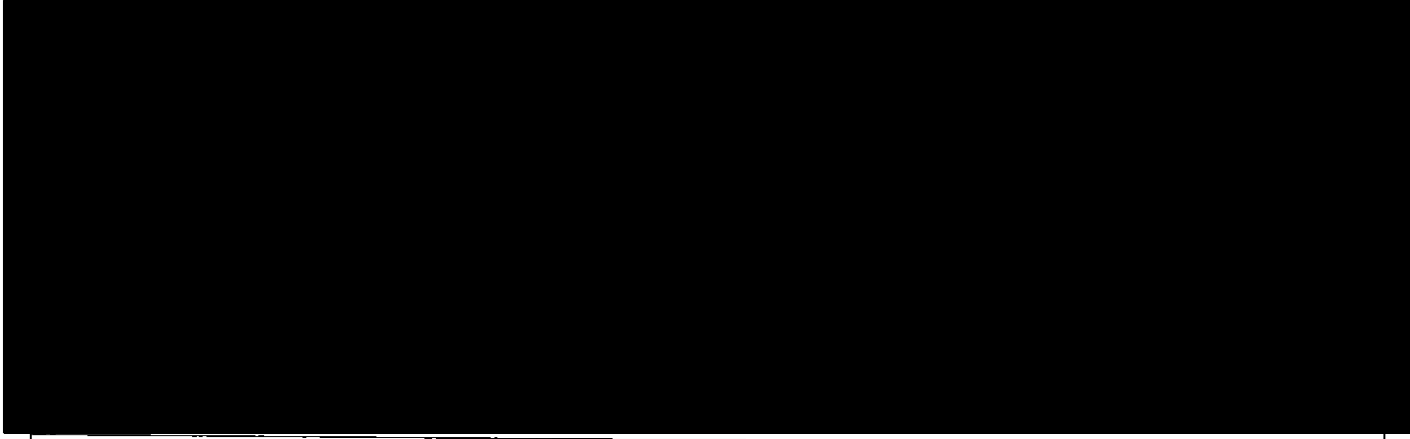
[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code

**SECTION D - Source Level Requirements**

§129.99 Alternative RACT proposal (RACT II).

The permittee shall implement the Scrap Pollution Prevention Plan as approved by the Department, to prevent the charging of any scrap into the furnace that is heavily oiled or contains a large amount of combustible, nonmetallic, or rubber materials to control VOC emissions.

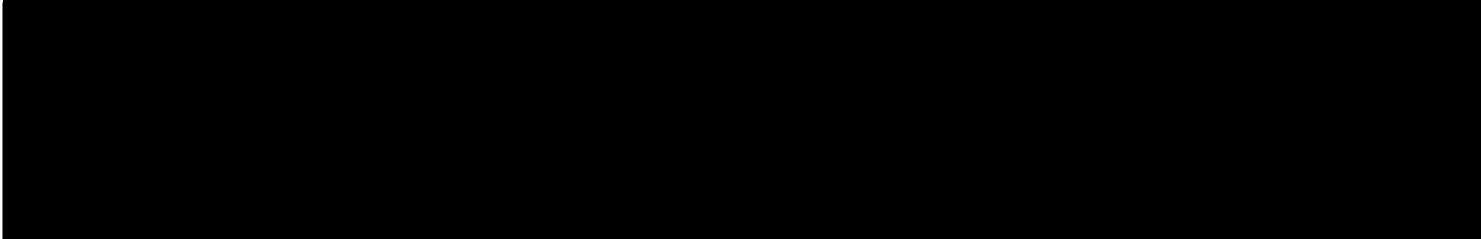


010 

Plan approval terms and conditions.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall operate and maintain the No. 2 EAF in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.



**SECTION D Source Level Requirements**

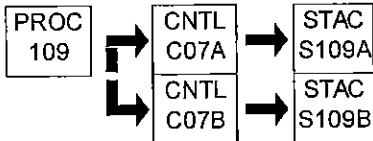
Source ID: 109

Source Name: #2 TANDEM COLD MILL

Source Capacity/Throughput: [REDACTED]

STEEL

Conditions for this source occur in the following groups: RACT II - CASE BY CASE

**I. RESTRICTIONS.****Emission Restriction(s).****# 002 [REDACTED]****Compliance demonstration and recordkeeping requirements.**

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The control devices associated with this source are to be operated when the source is in operation.

003 [25 Pa. Code §129.99]**Alternative RACT proposal and petition for alternative compliance schedule.**

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source must be equipped with and operate mist eliminators on the unit.

III. MONITORING REQUIREMENTS.**# 006 [REDACTED]****Monitoring and related recordkeeping and reporting requirements.**

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall check the pressure drop across each Mist Eliminator, using a differential pressure gauge, at least once for each day that the source is operated.

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

007

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep the following records for 5 years:

Daily pressure drop across the control device, for each day the source is in operation;

Quarterly control device cleanings for each quarter in which the source has operated;

Monthly preventive maintenance inspections of the control device. The inspection records, at a minimum, shall contain the dates of the inspections, any potential problems or defects that were encountered and steps taken to correct them.

008

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep records of when TCH and RGO types of steel are being produced.

VI. WORK PRACTICE REQUIREMENTS.

009

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

(a) The permittee shall perform a monthly preventative maintenance inspection of the control device for each month the source has been operated.

(b) The source and control device shall be maintained and operated in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

010

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform quarterly cleaning of the mist eliminator for each quarter in which the source has operated.



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**SECTION D: Source Level Requirements**

Source ID: 110

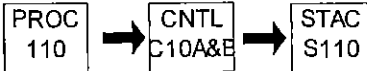
Source Name: #3 TANDEM COLD MILL

Source Capacity/Throughput:



STEEL

Conditions for this source occur in the following groups: RACT II - CASE BY CASE



**SECTION D: Source Level Requirements**

006

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall check the pressure drop across each Mist Eliminator, using a differential pressure gauge, at least once for each day that the source is operated.

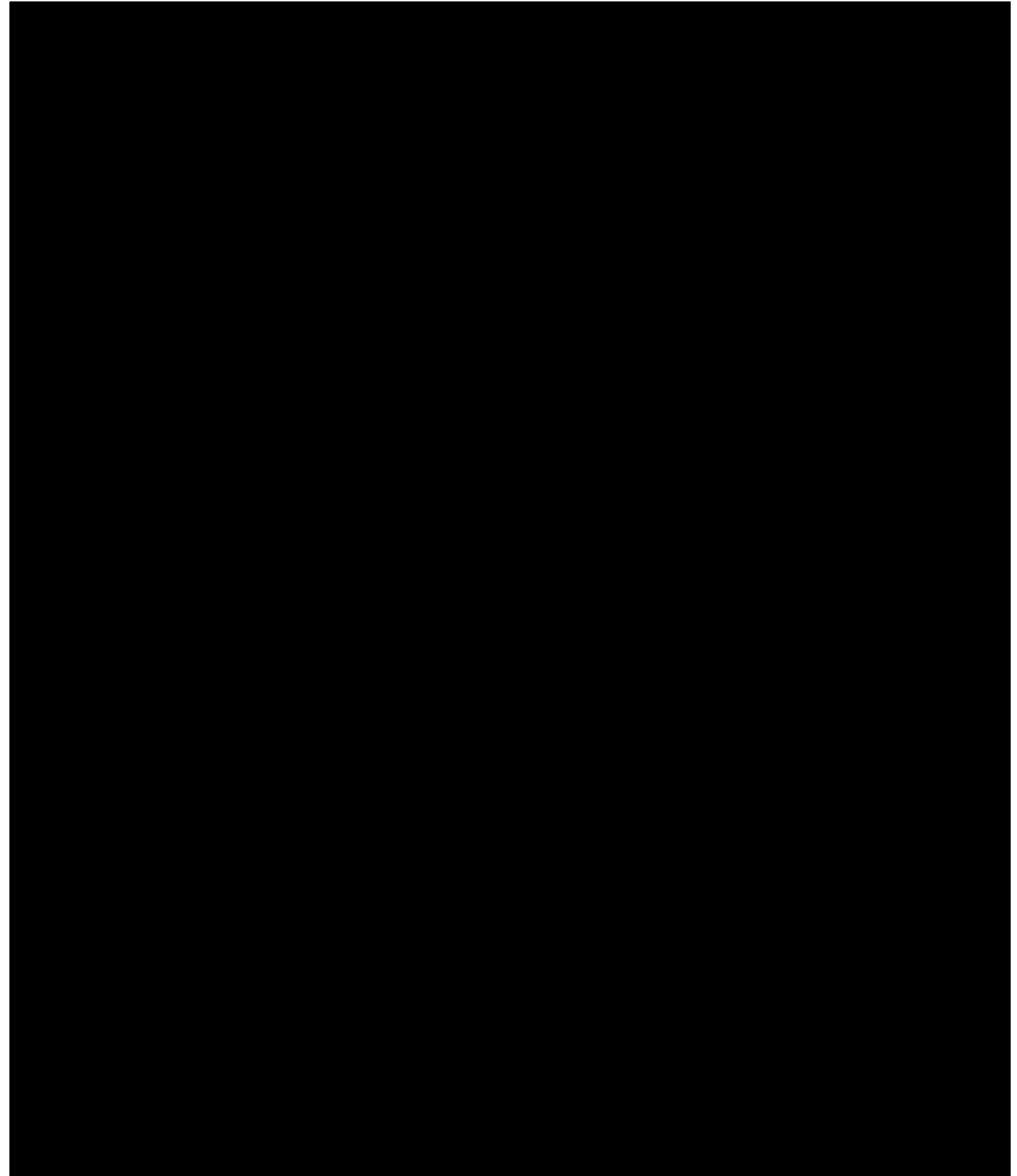
IV. RECORDKEEPING REQUIREMENTS.

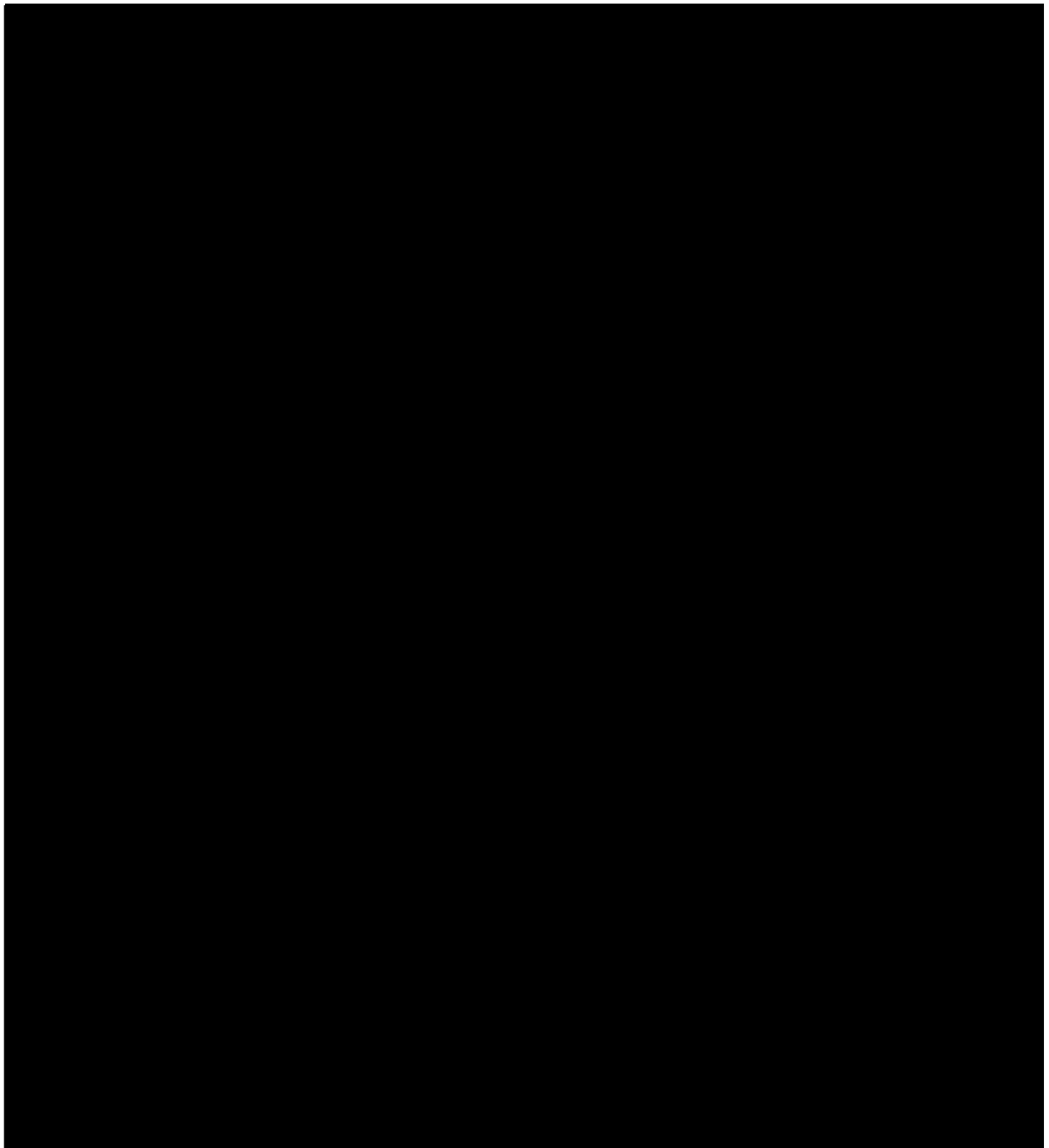
007

Plan approval terms and conditions.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep records of when TCH and RGO types of steel are being produced. These records shall be kept for a period of 5 years. The records shall be made readily available to Department personnel upon request.

**SECTION B Source-Level Requirements****VI. WORK PRACTICE REQUIREMENTS.**

**SECTION 10 Source Level Requirements**

014

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code

**SECTION D Source Level Requirements**

§129.99 Alternative RACT proposal (RACT II).

- (a) The permittee shall perform a monthly preventative maintenance inspection of the control device and associated equipment for each month the source has been operated.
- (b) The source and control device shall be maintained and operated in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.
- (c) The control devices associated with this source are to be operated at all times the source is in operation.

015

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform quarterly cleaning of the mist eliminator for each quarter in which the source has operated.

**SECTION D. Source Level Requirements**

Source ID: 111

Source Name: SLAB HEATING FURNACE 5

Source Capacity/Throughput: [REDACTED]

Natural Gas

STEEL

Conditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASE

PROC
111STAC
S111**Throughput Restriction(s).**

003 [REDACTED]

Operating permit terms and conditions.

Authority for this condition is also derived from 25 PA Code 129.92.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall limit fuel consumption to 700,000 mcf/yr based on a consecutive 12-month period.

II. TESTING REQUIREMENTS.

004 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing per current permit conditions.

IV. RECORDKEEPING REQUIREMENTS.

005 [REDACTED]

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

**SECTION D: Source Level Requirements**

The permittee shall maintain monthly records of the fuel consumption to each furnace.

006 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of annual burner tune-ups.

007 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

008 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

VI. WORK PRACTICE REQUIREMENTS.

009 [REDACTED]

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall be maintained and operated in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

**SECTION D. Source Level Requirements**

Source ID: 112

Source Name: SLAB HEATING FURNACE 6

Source Capacity/Throughput:

Natural Gas

STEEL

Conditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASE

PROC
112STAC
S112**I. RESTRICTIONS.****Emission Restriction(s).****Throughput Restriction(s).**

003

Operating permit terms and conditions.

Authority for this condition is also derived from 25 Pa Code 129.92.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall limit fuel consumption to 600,000 mcf/yr based on a consecutive 12-month period.

II. TESTING REQUIREMENTS.

004

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing per current permit conditions.

IV. RECORDKEEPING REQUIREMENTS.

005

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

**SECTION D Source Level Requirements**

The permittee shall maintain monthly records of the fuel consumption to each furnace.

006 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of annual burner tune-ups.

007 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

008 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

VI. WORK PRACTICE REQUIREMENTS.

009 [REDACTED]

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall be maintained and operated in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

**SECTION D: Source Level Requirements**

Source ID: 113

Source Name: SLAB HEATING FURNACE 7

Source Capacity/Throughput:

Natural Gas

STEEL

Conditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASE

PROC
113STAC
S113**I. RESTRICTIONS.****Emission Restriction(s).****Throughput Restriction(s).**

003

Operating permit terms and conditions.

Authority for this condition is also derived from 25 PA Code 129.92.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall limit fuel consumption to 600,000 mcf/yr based on a consecutive 12-month period.

II. TESTING REQUIREMENTS.

004

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing per current permit conditions.

IV. RECORDKEEPING REQUIREMENTS.

005

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

**SECTION D - Source Level Requirements**

The permittee shall maintain monthly records of the fuel consumption to each furnace.

006 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of annual burner tune-ups.

007 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

008 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

VI. WORK PRACTICE REQUIREMENTS.

009 [REDACTED]

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall be maintained and operated in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.



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SECTION D: Source Level Requirements

Source ID: 136

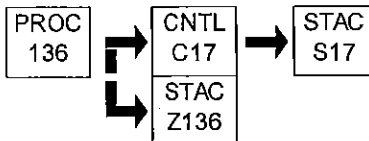
Source Name: AOD REACTOR

Source Capacity/Throughput:

LIQUID STEEL

Conditions for this source occur in the following groups: #1/2 BAGHOUSE

RACT II - CASE BY CASE



**SECTION D - Source-Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

004

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

- (a) The permittee shall maintain, on a daily basis, records of the amount of steel refined in the AOD during a 24 hour period.
- (b) The permittee shall maintain monthly records of the amount of steel refined in the AOD as a 12-month rolling total.
- (c) The records shall be kept for a period of five years and made available to the Department upon request.

VII. ADDITIONAL REQUIREMENTS.

006

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall operate and maintain the AOD reactor in accordance with good operating practices and good air pollution control practices.

**SECTION D Source Level Requirements**

Source ID: 137

Source Name: SLAB HEATING FURNACE 8

Source Capacity/Throughput:

Natural Gas
STEELConditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASEPROC
137STAC
S37**I. RESTRICTIONS.****Throughput Restriction(s).**

003

Operating permit terms and conditions.

Authority for this condition is also derived from 25 PA Code 129.92.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall limit fuel consumption to 600,000 mcf/yr based on a consecutive 12-month period.

II. TESTING REQUIREMENTS.

004

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing per current permit conditions.

IV. RECORDKEEPING REQUIREMENTS.

005

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

**SECTION D Source Level Requirements**

The permittee shall maintain monthly records of the fuel consumption to each furnace.

006 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of annual burner tune-ups.

007 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

008 [REDACTED]

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

VI. WORK PRACTICE REQUIREMENTS.

009 [REDACTED]

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall install, operate, and maintain the source in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

**SECTION D Source Level Requirements**

Source ID: 156

Source Name: ANNEAL FURNACE 4

Source Capacity/Throughput:

Natural Gas
STEELConditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASEPROC
156STAC
Z03**Fuel Restriction(s).**

003

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall burn only natural gas.

II. TESTING REQUIREMENTS.

004

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing as required by the Title V permit.

IV. RECORDKEEPING REQUIREMENTS.

005

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of the annual burner maintenance, adjusting, and testing activities.

**SECTION D: Source Level Requirements**

006

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

007

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

VI. WORK PRACTICE REQUIREMENTS.

008

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall be operated and maintained in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

**SECTION D Source Level Requirements**

Source ID: 157

Source Name: ANNEAL FURNACE 7

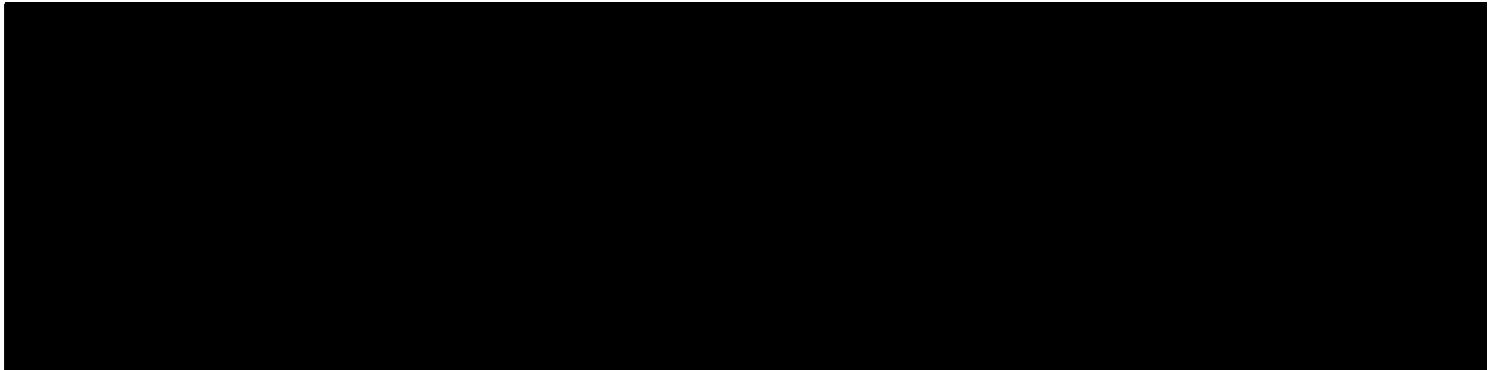
Source Capacity/Throughput:

[REDACTED]
[REDACTED]

Natural Gas

STEEL

Conditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASE
[REDACTED] [REDACTED]

PROC
157STAC
S18**I. RESTRICTIONS.****Fuel Restriction(s).**

003 [REDACTED]

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall burn only natural gas.

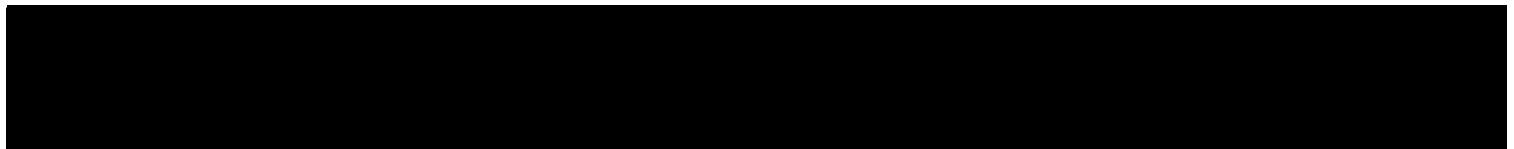
II. TESTING REQUIREMENTS.

004 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing as required by the Title V permit.

**IV. RECORDKEEPING REQUIREMENTS.**

005 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of the annual burner maintenance, adjusting, and testing activities.

**SECTION D. Source Level Requirements**

006

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

007

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

VI. WORK PRACTICE REQUIREMENTS.

008

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

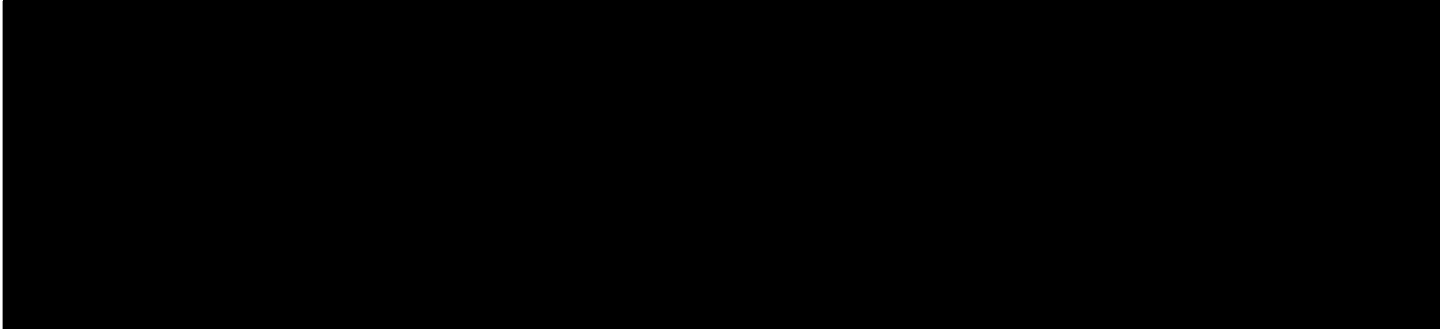
The source shall be operated and maintained in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

**SECTION D - Source Level Requirements**

Source ID: 158

Source Name: ANNEAL FURNACE 12

Source Capacity/Throughput: [REDACTED]

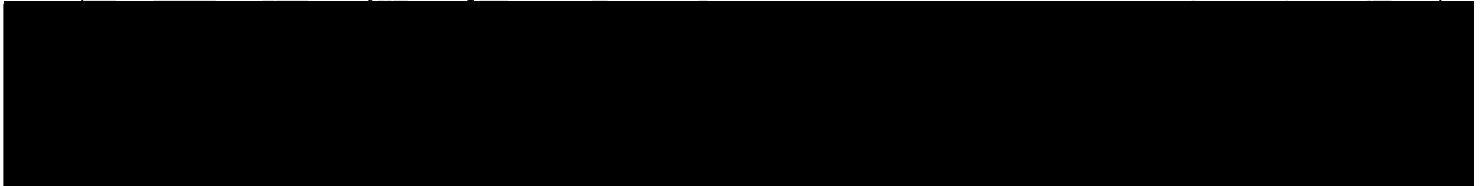
Natural Gas
STEELConditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASEPROC
158STAC
S158**I. RESTRICTIONS.****Emission Restriction(s).**

003 [REDACTED]

Alternative RACT proposal and petition for alternative compliance schedule.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall burn only natural gas.

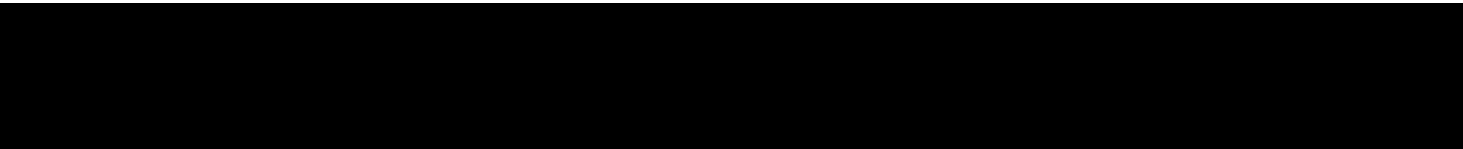
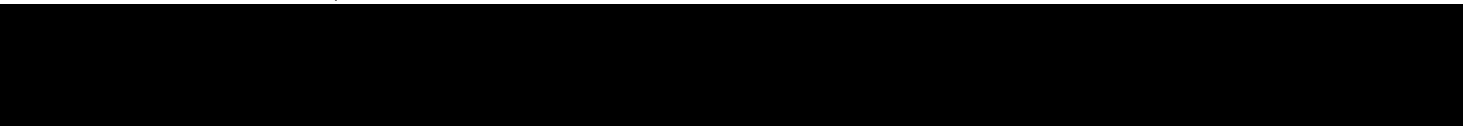
**II. TESTING REQUIREMENTS.**

005 [REDACTED]

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing as required by the Title V permit.

**IV. RECORDKEEPING REQUIREMENTS.**

**SECTION D. Source-Level Requirements**

007

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of the annual burner maintenance, adjusting, and testing activities.

008

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

009

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

VI. WORK PRACTICE REQUIREMENTS.

010

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall be operated and maintained in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.



10-00001

AK STEEL CORP/BUTLER WORKS

**SECTION D: Source Level Requirements**

Source ID: 162

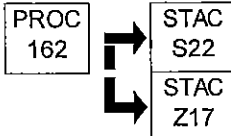
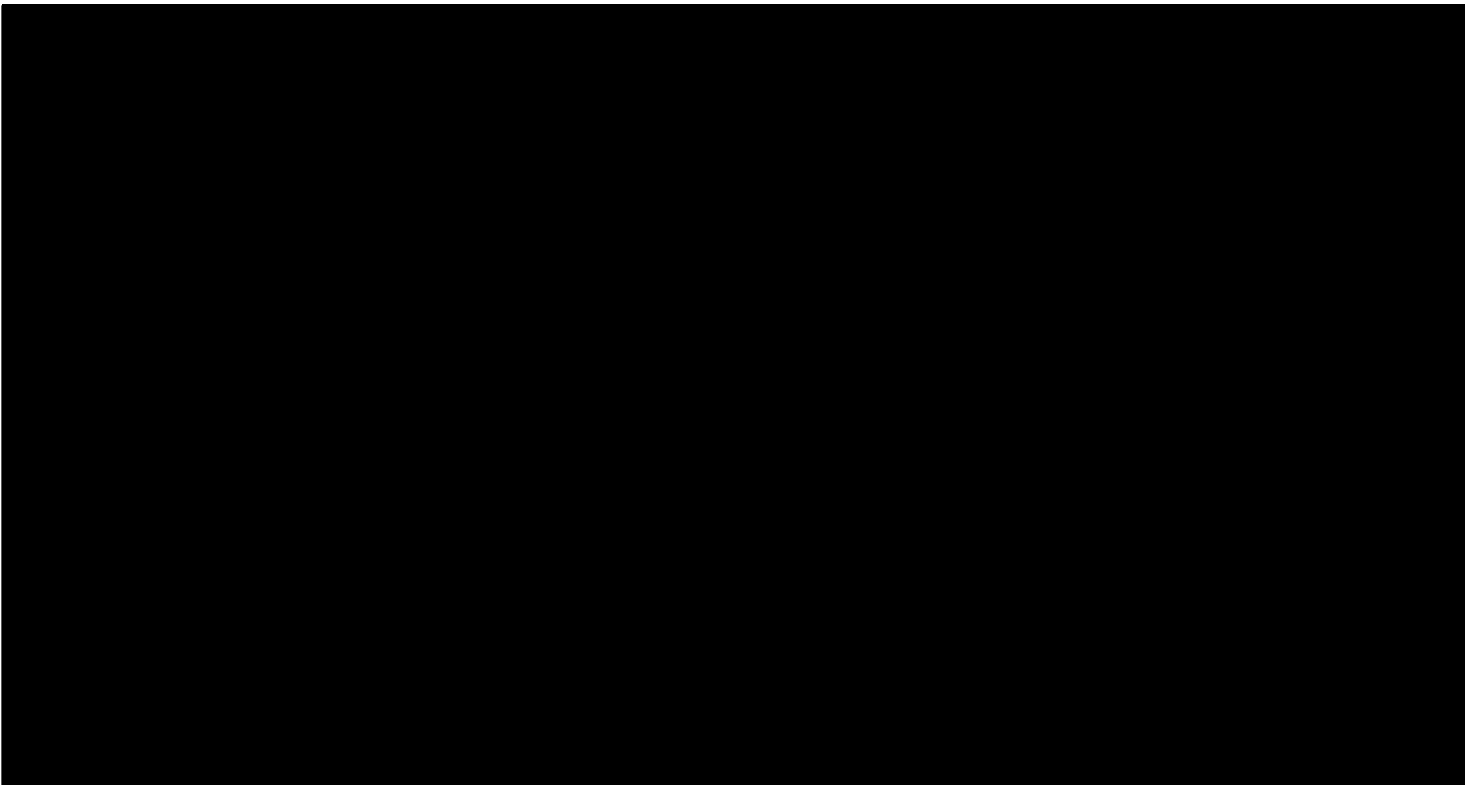
Source Name: CARLITE LINE DRY FURNACE 26

Source Capacity/Throughput:

Natural Gas

STEEL

Conditions for this source occur in the following groups: RACT I - BOILERS & FURNACES
RACT II - CASE BY CASE

**I. RESTRICTIONS.****Fuel Restriction(s).**

004

Monitoring and related recordkeeping and reporting requirements.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The source shall burn only natural gas.

**SECTION D: Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

005

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT I Boilers & Furnaces.

006

Compliance demonstration and recordkeeping requirements.

The permittee shall demonstrate compliance and maintain records as specified in Section E - RACT II - Case by Case.

VI. WORK PRACTICE REQUIREMENTS.

007

Operating permit terms and conditions.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall maintain and operate the source in accordance with the manufacturer's emissions-related specifications, if available, or in accordance with good air pollution control practices.

[Compliance with this condition assures compliance with work practice requirement established pursuant to 25 Pa. Code § 129.93.]

**SECTION D. Source Level Requirements**

009 [REDACTED]

Alternative RACT proposal and petition for alternative compliance schedule.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

Burners associated with this source shall be equipped with Low-NOx Burner technology.

**SECTION E Source Group Restrictions**

Group Name: #1/2 BAGHOUSE

Group Description: All sources controlled by #1/2 Baghouse

Sources included in this group

ID	Name
102	ELECTRIC ARC FURNACE 2
136	AOD REACTOR

I. RESTRICTIONS.**Emission Restriction(s).**

002

Plan approval terms and conditions.

[Plan Approval 10-001O]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

(a) Emissions from the #1/2 Baghouse shall not exceed the following in any consecutive twelve-month rolling period:

(2) VOC - 140 tons

(b) Emissions shall be calculated using the average emission rate from the most recent stack test multiplied by tons of liquid steel reacted/produced during a given month. The sum of the monthly emissions for any consecutive 12-month rolling period will be used to demonstrate compliance with the above limitations.

[Paragraph (b) of this condition was added during the 2019 renewal to redefine methodology of calculating 12-month rolling emissions.]

003

Plan approval terms and conditions.

[Plan Approval 10-001O]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

Short-term emissions from the #1/2 Baghouse shall not exceed the following calculated as a 24 hour average:

a. VOC - 0.14 lb/ton

004

Plan approval terms and conditions.

[Plan Approval 10-001O]

**SECTION E Source Group Restrictions**

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

Upon issuance of this Title V permit, the following limits shall apply:

a. Final short-term limits for NOx [REDACTED] shall be as follows (calculated as a 24- hour average):

i. NOx - 0.020 lb/ton
[REDACTED]

b. Final long-term limits for NOx [REDACTED] shall be as follows (calculated as a 12- month rolling total):

i. NOx - 20 tpy
[REDACTED]

c. If the results of a stack test exceed the level specified in any condition of this permit, the permittee shall take appropriate corrective actions. Within 30 days of the permittee receiving the stack test results, a written description of the corrective actions shall be submitted to the Department. The permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. The Department shall notify the permittee within 30 days, if the corrective actions taken are deficient. Within 30 days of receipt of the notice of deficiency, the permittee shall submit a description of additional corrective actions to the Department. The Department reserves the authority to use enforcement activities to resolve noncompliant stack tests.

d. If the results of the required stack test exceed any limit defined in this permit, the test was not performed in accordance with the stack test protocol or the source and/or air cleaning device was not operated in accordance with the permit, then another stack test shall be performed to determine compliance. Within 120 days of the permittee receiving the original stack test results, a retest shall be performed at a production rate which shall not exceed the production rate achieved in the previous stack test. The Department may extend the retesting deadline if the permittee demonstrates, to the Department's satisfaction, that retesting within 120 days is not practicable. Failure of the second test to demonstrate compliance with the limits in the permit, not performing the test in accordance with the stack test protocol or not operating the source and/or air cleaning device in accordance with the permit may be grounds for immediate revocation of the permit to operate the affected source.

e. If multiple stack test results in non-compliance with the permit limits, the facility may submit a plan approval application to revise the emission limits. The Department reserves the right to take enforcement action based upon non-compliant emission limits.

**SECTION E Source Group Restrictions**

Group Name: #3 BAGHOUSE

Group Description: All sources controlled by #3 Baghouse

Sources included in this group

ID	Name
101	ELECTRIC ARC FURNACE 5
102	ELECTRIC ARC FURNACE 2

I. RESTRICTIONS.**Emission Restriction(s).**

001

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

(a) Emissions from the #3 Baghouse shall not exceed the following in any consecutive twelve-month rolling period:

- (3) NOx - 358.75 tons
- (5) VOC - 90 tons

(b) Emissions shall be calculated using the average emission rate from the most recent stack test multiplied by tons of liquid steel reacted/produced during a given month. The sum of the monthly emissions for any consecutive 12-month rolling period will be used to demonstrate compliance with the above limitations.

[Paragraph (b) of this condition was added during the 2019 renewal to redefine methodology of calculating 12-month rolling emissions.]

002

Plan approval terms and conditions.

[Plan Approval 10-0010]

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

Short-term emissions from the #3 Baghouse shall not exceed the following calculated as a 24 hour average:

- (b) NOx - 0.35 pounds per ton of liquid steel produced when the #5 EAF is operating
- (c) NOx - 0.42 pounds per ton of liquid steel produced when the #2 EAF is operating
- (e) VOC - 0.09 pounds per ton of liquid steel produced when the #5 EAF is operating
- (f) VOC - 0.18 pounds per ton of liquid steel produced when the #2 EAF is operating

**SECTION I Source Group Restrictions**

Group Name: RACT I - BOILERS & FURNACES

Group Description: RACT requirements for boilers and furnaces pursuant to RACT 10-001-M

Sources included in this group

ID	Name
111	SLAB HEATING FURNACE 5
112	SLAB HEATING FURNACE 6
113	SLAB HEATING FURNACE 7
137	SLAB HEATING FURNACE 8
156	ANNEAL FURNACE 4
157	ANNEAL FURNACE 7
158	ANNEAL FURNACE 12
162	CARLITE LINE DRY FURNACE 26

IV. RECORDKEEPING REQUIREMENTS.

001

Operating permit terms and conditions.

Authority for this condition is also derived from 25 PA Code 129.93. In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall record each adjustment conducted in a permanent record keeping system. This record shall contain, at a minimum, the following:

1. The date of the tuning procedure
2. The name of the service company and the technician performing the procedure
3. The final operating rate or load
4. The final CO and NOx emission rates
5. The final excess oxygen rate

VI. WORK PRACTICE REQUIREMENTS.

002

Operating permit terms and conditions.

Authority for this condition is also derived from 25 PA Code 129.93. In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

**SECTION 1 Source: Grain Restrictions**

The permittee shall perform an annual tune-up and burner maintenance. This adjustment shall include, at a minimum, the following:

1. Inspection, adjustment, cleaning or replacement of fuel-burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
2. Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and to the extent practicable minimize emissions of CO.
3. Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

**SECTION I Source Group Restrictions**

Group Name: RACT II - CASE BY CASE

Group Description: Sources Subject to Alternative RACT Provisions of 129.99

Sources included in this group

ID	Name
101	ELECTRIC ARC FURNACE 5
102	ELECTRIC ARC FURNACE 2
109	#2 TANDEM COLD MILL
110	#3 TANDEM COLD MILL
111	SLAB HEATING FURNACE 5
112	SLAB HEATING FURNACE 6
113	SLAB HEATING FURNACE 7
136	AOD REACTOR
137	SLAB HEATING FURNACE 8
156	ANNEAL FURNACE 4
157	ANNEAL FURNACE 7
158	ANNEAL FURNACE 12
162	CARLITE LINE DRY FURNACE 26

I. RESTRICTIONS.**Emission Restriction(s).**

001

Alternative RACT proposal and petition for alternative compliance schedule.

In accordance with 25 Pa. Code §129.99, the permittee submitted an Alternative RACT proposal (RACT II) and the Department approved the proposed plan. The Title V permit includes conditions to ensure compliance with the Department approved Alternative RACT Plan.

III. MONITORING REQUIREMENTS.

002

Monitoring and related recordkeeping and reporting requirements.

The permittee shall follow CAM plan requirements for monitoring, maintenance, and operation for all sources to which CAM plan requirements are applicable.

IV. RECORDKEEPING REQUIREMENTS.

003

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records of annual burner tune-ups for all sources to which annual burner tune-up requirements are applicable.

004

Compliance demonstration and recordkeeping requirements.

This requirement ensures compliance with the 25 Pa. Code §129.100 Compliance Demonstration and Recordkeeping Requirements for the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall keep and maintain records and type and condition of scrap added to each batch of steel produced shall

**SECTION I Source Group Restrictions**

be kept on site for a period of 5 years for all sources to which scrap record requirements are applicable.

005 [REDACTED]

Compliance demonstration and recordkeeping requirements.

(a) N/A

(b) N/A

(c) N/A

(d) The owner and operator of an air contamination source subject to this section and §§ 129.96—129.99 shall keep records to demonstrate compliance with §§ 129.96—129.99 in the following manner:

(1) The records must include sufficient data and calculations to demonstrate that the requirements of §§ 129.96—129.99 are met.

(2) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

(e) Beginning with the compliance date specified in § 129.97(a), the owner or operator of an air contamination source claiming that the air contamination source is exempt from the applicable NO_x emission rate threshold specified in § 129.99(b) and the requirements of § 129.97 based on the air contamination source's potential to emit shall maintain records that demonstrate to the Department or appropriate approved local air pollution control agency that the air contamination source is not subject to the specified emission rate threshold.

(f) Beginning with the compliance date specified in § 129.97(a), the owner or operator of an air contamination source claiming that the air contamination source is exempt from the applicable VOC emission rate threshold specified in § 129.99(c) and the requirements of § 129.97 based on the air contamination source's potential to emit shall maintain records that demonstrate to the Department or appropriate approved local air pollution control agency that the air contamination source is not subject to the specified emission rate threshold.

(g) N/A

(h) N/A

(i) The records shall be retained by the owner or operator for 5 years and made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.

VI. WORK PRACTICE REQUIREMENTS.

006 [REDACTED]

Operating permit terms and conditions.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

Install, maintain, and operate each source in accordance with the manufacturer's specifications, if available, and/or with good air pollution control practices.

007 [REDACTED]

Operating permit terms and conditions.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall implement and follow Scrap Pollution Prevention Plan to prevent the charging of any scrap into the furnace that is heavily oiled or contains a large amount of combustible, nonmetallic, or rubber materials for all sources to which Scrap Pollution Prevention Plan requirements are applicable.

**SECTION 12 Source Group Restrictions**

008 [REDACTED]

Alternative RACT proposal and petition for alternative compliance schedule.

In addition to the cited regulatory authority for this condition, this requirement ensures compliance with the 25 Pa. Code §129.99 Alternative RACT proposal (RACT II).

The permittee shall perform annual burner maintenance, adjusting, and testing per current permit conditions for all sources to which annual burner maintenance, adjusting, and testing requirements are applicable.