



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR QUALITY PROGRAM

**TITLE V/STATE OPERATING PERMIT**

Issue Date: June 30, 2014

Effective Date: June 30, 2014

Expiration Date: June 30, 2019

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: 63-00074**

Federal Tax Id - Plant Code: 84-1248486-1

**Owner Information**

Name: LANGELOTH METALLURGICAL CO LLC  
Mailing Address: PO BOX 608  
10 LANGELOTH PLANT DR  
LANGELOTH, PA 15054

**Plant Information**

Plant: LANGELOTH METALLURGICAL CO LLC/LANGELOTH  
Location: 63 Washington County 63953 Smith Township  
SIC Code: 3313 Manufacturing - Electrometallurgical Products

**Operator**

Name: LANGELOTH METALLURGICAL CO LLC [If different from owner]  
Mailing Address: 10 LANGELOTH PLANT DR  
PO BOX 608  
LANGELOTH, PA 15054

**Responsible Official**

Name: ROBERT DOERFLER  
Title: GENERAL MANAGER  
Phone: (724) 947 - 2201

**Permit Contact Person**

Name: ALYSSA MATALIK  
Title: MGR TECHNICAL SERVICES  
Phone: (724) 947 - 1245

[Signature] \_\_\_\_\_  
MARK A. WAYNER, SOUTHWEST REGION AIR PROGRAM MANAGER

**SECTION A. Table of Contents****Section A. Facility/Source Identification**

Table of Contents  
Site Inventory List

**Section B. General Title V Requirements**

- #001 Definitions
- #002 Property Rights
- #003 Permit Expiration
- #004 Permit Renewal
- #005 Transfer of Ownership or Operational Control
- #006 Inspection and Entry
- #007 Compliance Requirements
- #008 Need to Halt or Reduce Activity Not a Defense
- #009 Duty to Provide Information
- #010 Reopening and Revising the Title V Permit for Cause
- #011 Reopening a Title V Permit for Cause by EPA
- #012 Significant Operating Permit Modifications
- #013 Minor Operating Permit Modifications
- #014 Administrative Operating Permit Amendments
- #015 Severability Clause
- #016 Fee Payment
- #017 Authorization for De Minimis Emission Increases
- #018 Reactivation of Sources
- #019 Circumvention
- #020 Submissions
- #021 Sampling, Testing and Monitoring Procedures
- #022 Recordkeeping Requirements
- #023 Reporting Requirements
- #024 Compliance Certification
- #025 Operational Flexibility
- #026 Risk Management
- #027 Approved Economic Incentives and Emission Trading Programs
- #028 Permit Shield

**Section C. Site Level Title V Requirements**

- C-I: Restrictions
- C-II: Testing Requirements
- C-III: Monitoring Requirements
- C-IV: Recordkeeping Requirements
- C-V: Reporting Requirements
- C-VI: Work Practice Standards
- C-VII: Additional Requirements
- C-VIII: Compliance Certification
- C-IX: Compliance Schedule

**Section D. Source Level Title V Requirements**

- D-I: Restrictions
- D-II: Testing Requirements
- D-III: Monitoring Requirements
- D-IV: Recordkeeping Requirements
- D-V: Reporting Requirements
- D-VI: Work Practice Standards
- D-VII: Additional Requirements

Note: These same sub-sections are repeated for each source!



## SECTION A. Table of Contents

### Section E. Source Group Restrictions

- E-I: Restrictions
- E-II: Testing Requirements
- E-III: Monitoring Requirements
- E-IV: Recordkeeping Requirements
- E-V: Reporting Requirements
- E-VI: Work Practice Standards
- E-VII: Additional Requirements

### Section F. Alternative Operating Scenario(s)

- F-I: Restrictions
- F-II: Testing Requirements
- F-III: Monitoring Requirements
- F-IV: Recordkeeping Requirements
- F-V: Reporting Requirements
- F-VI: Work Practice Standards
- F-VII: Additional Requirements

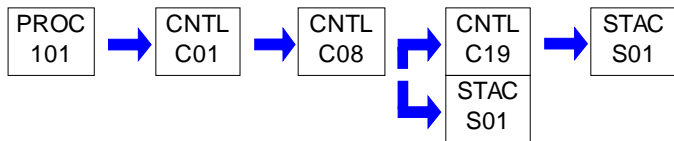
### Section G. Emission Restriction Summary

### Section H. Miscellaneous

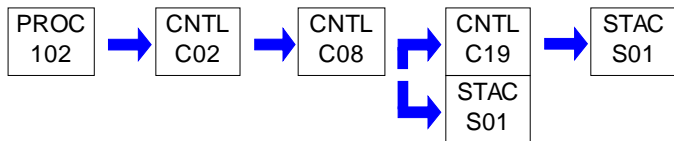
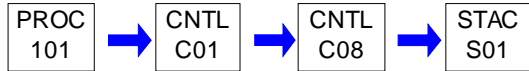
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput		Fuel/Material
101	ROASTER	1.000	Tons/HR	HIGH SULFUR FEED
		8.600	MCF/HR	Natural Gas
		1.200	Tons/HR	LOW SULFUR FEED
102	ROASTER	1.000	Tons/HR	HIGH SULFUR FEED
		8.600	MCF/HR	NATURAL GAS
		1.200	Tons/HR	LOW SULFUR FEED
103	ROASTER	1.750	Tons/HR	HIGH SULFUR FEED
		12.500	MCF/HR	Natural Gas
		2.000	Tons/HR	LOW SULFUR FEEDS
104	ROASTER	1.750	Tons/HR	HIGH SULFUR FEED
		12.500	MCF/HR	Natural Gas
		2.000	Tons/HR	LOW SULFUR FEED
105	ROASTER	2.000	Tons/HR	HIGH SULFUR FEED
		16.300	MCF/HR	Natural Gas
		2.200	Tons/HR	LOW SULFUR FEED
106	ROASTER	2.000	Tons/HR	HIGH SULFUR FEED
		16.300	MCF/HR	Natural Gas
		2.200	Tons/HR	LOW SULFUR FEED
107	ACID PLANT	10.000	Tons/HR	SULFURIC ACID
108	NONMETALLIC MINERAL PLANT			
130	ALUMINOTHERMIC PROCESS	15.000	Tons/HR	FERROMOLY ALLOYS
131	PURE OXIDE PRODUCTION	0.500	Tons/HR	MOLYBDENUM
132	EMERGENCY GENERATORS (4 @ 454 HP EACH)			
C01	MULTICYCLONE			
C02	MULTICYCLONE			
C03	MULTICYCLONE			
C04	MULTICYCLONE			
C05	MULTICYCLONE			
C06	MULTICYCLONE			
C08	ELECTROSTATIC PRECIP			
C15	FABRIC COLLECTOR			
C16	FABRIC COLLECTOR			
C19	ACID PLANT			
S01	MAIN STACK			
S02	ALUMINOTHERMIC STACK			
S03	PURE OXIDE STACK			

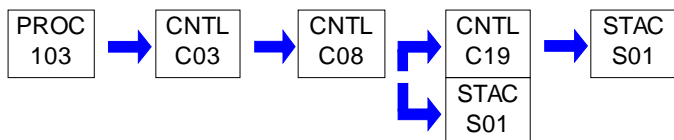
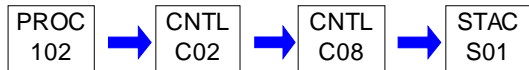
**PERMIT MAPS**

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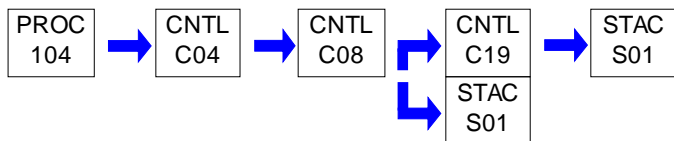
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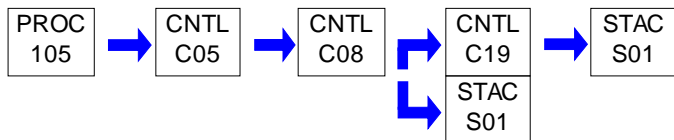
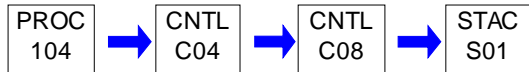
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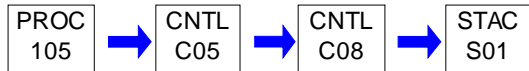
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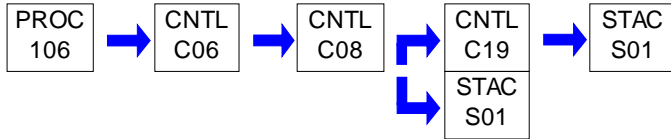


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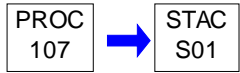
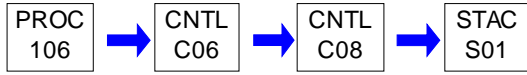


Alternative Operation:



**PERMIT MAPS**

Alternative Operation:



**SECTION B. General Title V Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

**#002 [25 Pa. Code § 127.512(c)(4)]****Property Rights**

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

**#003 [25 Pa. Code § 127.446(a) and (c)]****Permit Expiration**

This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

**#004 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e) & 127.503]****Permit Renewal**

(a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.

(b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

(c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).

(d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

**#005 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]****Transfer of Ownership or Operational Control**

(a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:

(1) The Department determines that no other change in the permit is necessary;

(2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee; and,

(3) A compliance review form has been submitted to the Department and the permit transfer has been approved by the Department.

**SECTION B. General Title V Requirements**

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

**#006 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]****Inspection and Entry**

(a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:

- (1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
- (2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.

(c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

**#007 [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)]****Compliance Requirements**

(a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

**#008 [25 Pa. Code § 127.512(c)(2)]****Need to Halt or Reduce Activity Not a Defense**

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



**SECTION B. General Title V Requirements****#009 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]****Duty to Provide Information**

(a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

(b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

**#010 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]****Reopening and Revising the Title V Permit for Cause**

(a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.

(b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:

(1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.

(2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.

(3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.

(d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

**#011 [25 Pa. Code § 127.543]****Reopening a Title V Permit for Cause by EPA**

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

**#012 [25 Pa. Code § 127.541]****Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with 25 Pa. Code § 127.541.

**SECTION B. General Title V Requirements****#013 [25 Pa. Code §§ 121.1 & 127.462]****Minor Operating Permit Modifications**

- (a) The permittee may make minor operating permit modifications (as defined in 25 Pa. Code § 121.1) in accordance with 25 Pa. Code § 127.462.
- (b) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to an operational flexibility change authorized by 25 Pa. Code § 127.462.

**#014 [25 Pa. Code § 127.450]****Administrative Operating Permit Amendments**

- (a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code § 127.450(a), according to procedures specified in § 127.450. Administrative amendments are not authorized for any amendment precluded by the Clean Air Act or the regulations thereunder from being processed as an administrative amendment.
- (b) Upon taking final action granting a request for an administrative permit amendment in accordance with § 127.450(c), the Department will allow coverage under 25 Pa. Code § 127.516 (relating to permit shield) for administrative permit amendments which meet the relevant requirements of 25 Pa. Code Article III, unless precluded by the Clean Air Act or the regulations thereunder.

**#015 [25 Pa. Code § 127.512(b)]****Severability Clause**

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

**#016 [25 Pa. Code §§ 127.704, 127.705 & 127.707]****Fee Payment**

- (a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees).
- (b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.
- (c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.
- (d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).
- (e) The permittee shall pay an annual operating permit administration fee according to the fee schedule established in 25 Pa. Code § 127.704(c) if the facility, identified in Subparagraph (iv) of the definition of the term "Title V facility" in 25 Pa. Code § 121.1, is subject to Title V after the EPA Administrator completes a rulemaking requiring regulation of those sources under Title V of the Clean Air Act.
- (f) This permit condition does not apply to a Title V facility which qualifies for exemption from emission fees under 35 P.S. § 4006.3(f).

**SECTION B. General Title V Requirements**

#017 [25 Pa. Code §§ 127.14(b) &amp; 127.449]

**Authorization for De Minimis Emission Increases**

(a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or (2) the construction, installation, modification or reactivation of an air contamination source. The written notice shall:

- (1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.
- (2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

The Department may disapprove or condition de minimis emission increases at any time.

(b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

- (1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.
- (2) One ton of NO<sub>x</sub> from a single source during the term of the permit and 5 tons of NO<sub>x</sub> at the facility during the term of the permit.
- (3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.
- (4) Six-tenths of a ton of PM<sub>10</sub> from a single source during the term of the permit and 3.0 tons of PM<sub>10</sub> at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.
- (5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:

- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
- (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.
- (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
- (4) Space heaters which heat by direct heat transfer.
- (5) Laboratory equipment used exclusively for chemical or physical analysis.
- (6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more

**SECTION B. General Title V Requirements**

of the following:

(1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.

(2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.

(3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.

(4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.

(e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) applies to de minimis emission increases and the installation of minor sources made pursuant to this permit condition.

(f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.

(g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.

(h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

**#018 [25 Pa. Code §§ 127.11a & 127.215]****Reactivation of Sources**

(a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

**#019 [25 Pa. Code §§ 121.9 & 127.216]****Circumvention**

(a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this permit, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

**SECTION B. General Title V Requirements****#020 [25 Pa. Code §§ 127.402(d) & 127.513(1)]****Submissions**

(a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager  
PA Department of Environmental Protection  
(At the address given on the permit transmittal letter,  
or otherwise notified)

(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Office of Air Enforcement and Compliance Assistance (3AP20)  
United States Environmental Protection Agency  
Region 3  
1650 Arch Street  
Philadelphia, PA 19103-2029

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**#021 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]****Sampling, Testing and Monitoring Procedures**

(a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

**#022 [25 Pa. Code §§ 127.511 & Chapter 135]****Recordkeeping Requirements**

(a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

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

**SECTION B. General Title V Requirements**

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

**#023 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]****Reporting Requirements**

(a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.

(c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #020(c) of this permit.

(d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

**#024 [25 Pa. Code § 127.513]****Compliance Certification**

(a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:

- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.

(b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department and EPA in accordance with the submission requirements specified in condition #020 of this section.

**#025 [25 Pa. Code § 127.3]****Operational Flexibility**

(a) The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

**SECTION B. General Title V Requirements**

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with Federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)
- (6) Section 127.462 (relating to minor operating permit amendments)
- (7) Subchapter H (relating to general plan approvals and operating permits)

(b) Unless precluded by the Clean Air Act or the regulations adopted thereunder, the permit shield authorized under 25 Pa. Code § 127.516 shall extend to operational flexibility changes made at this Title V facility pursuant to this permit condition and other applicable operational flexibility terms and conditions of this permit.

**#026 [25 Pa. Code §§ 127.441(d), 127.512(i) and 40 CFR Part 68]****Risk Management**

(a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

(b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:

- (1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:
  - (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
  - (ii) The date on which a regulated substance is first present above a threshold quantity in a process.

(2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.

(3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.

(c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

(d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:

(1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,

(2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.

(e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation

**SECTION B. General Title V Requirements**

of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.

(f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:

(1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.

(2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Condition #24 of Section B of this Title V permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

**#027 [25 Pa. Code § 127.512(e)]****Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

**#028 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]****Permit Shield**

(a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:

(1) The applicable requirements are included and are specifically identified in this permit.

(2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.

(b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.

(2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.

(4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.

(c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department on minor or significant permit modifications, and operational flexibility changes shall be covered by the permit shield. Upon taking final action granting a request for an administrative permit amendment, the Department will allow coverage of the amendment by the permit shield in § 127.516 for administrative amendments which meet the relevant requirements of 25 Pa. Code Article III.

(d) The permit shield authorized under § 127.516 is in effect for the permit terms and conditions in this Title V permit, including administrative operating permit amendments and minor operating permit modifications.



**SECTION C. Site Level Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §121.7]****Prohibition of air pollution.**

No person may permit air pollution as that term is defined in the act.

**# 002 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

(a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:

- (1) Construction or demolition of buildings or structures.
- (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.

- (4) Clearing of land.
- (5) Stockpiling of materials.
- (6) Open burning operations.
- (7) N/A
- (8) N/A

(9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

- (i) the emissions are of minor significance with respect to causing air pollution; and
- (ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

(b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.

(c) See Work Practice Standards

(d) The requirements contained in subsection (a) and 123.2 do not apply to fugitive emissions arising from the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

**# 003 [25 Pa. Code §123.13]****Processes**

Unless a more stringent particulate matter emission rate is established elsewhere in this TVOP, no person may permit the emission into the outdoor atmosphere of particulate matter from any process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

**# 004 [25 Pa. Code §123.2]****Fugitive particulate matter**

No person may permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 25 PA Code Section 123.1 if the emissions are visible at the point the emissions pass outside the person's property.

**# 005 [25 Pa. Code §123.21]****General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a process in a manner that the

**SECTION C. Site Level Requirements**

concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 006 [25 Pa. Code §123.31]****Limitations**

A person may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

**# 007 [25 Pa. Code §123.41]****Limitations**

Unless a more stringent limitation is established elsewhere in this Title V Operating Permit, the following restriction shall apply to all sources at this site:

Permittee may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

**# 008 [25 Pa. Code §123.42]****Exceptions**

The visible emission limitations of 25 PA Code Section 123.41 do not apply when:

- (a) The presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (b) The emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (c) The emission results from sources specified in 25 PA Code Section 123.1(a)(1)-(9) (relating to prohibition of certain fugitive emissions).

**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions of SO<sub>2</sub> from this entire facility shall not exceed 249.5 tons per year on a rolling 12 month basis.

**# 010 [25 Pa. Code §129.14]****Open burning operations**

(a) Air basins. No person may permit the open burning of material in an air basin.

(b) Outside of air basins. No person may permit the open burning of material in an area outside of air basins in a manner that:

- (1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.
- (2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.
- (3) The emissions interfere with the reasonable enjoyment of life or property.
- (4) The emissions cause damage to vegetation or property.
- (5) The emissions are or may be deleterious to human or animal health.

(c) Exceptions: The requirements of subsections (a) and (b) do not apply where the open burning operations result from:

- (1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.
- (2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
- (3) A fire set for the prevention and control of disease or pests, when approved by the Department.

**SECTION C. Site Level Requirements**

- (4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.
- (5) A fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of such structure.
- (6) A fire set solely for recreational or ceremonial purposes.
- (7) A fire set solely for cooking food.

(d) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:

- (1) As used in this subsection the following terms shall have the following meanings:

**Air curtain destructor** -- A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

**Clearing and grubbing wastes** -- Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

(2) Subsection (a) notwithstanding, clearing and grubbing wastes may be burned in a basin subject to the following requirements:

- (i) Air curtain destructors shall be used when burning clearing and grubbing wastes.
- (ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning. Proposals approved under this subparagraph need not obtain plan approval or operating permits under Chapter 127 (relating to construction modification, reactivation and operation of sources).
- (iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.
- (iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.

(3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:

- (i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.
- (ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.

(4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

**# 011 [25 Pa. Code §123.43]**

**Measuring techniques**

Visible emissions may be measured using either of the following:

- (a) A device approved by the Department and maintained to provide accurate opacity measurements.
- (b) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

**SECTION C. Site Level Requirements****# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Compliance with the mass emission limitations established herein shall be demonstrated using engineering calculations based on CEM data, stack tests, laboratory analyses, operating parameters, mass balances and other methods as may be approved by the Department.

**IV. RECORDKEEPING REQUIREMENTS.****# 013 [25 Pa. Code §135.5]****Recordkeeping**

Source owners or operators shall maintain and make available upon request by the Department records including computerized records that may be necessary to comply with §§ 135.3 and 135.21 (relating to reporting; and emission statements). These may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

**V. REPORTING REQUIREMENTS.****# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The owner or operator shall report report to the Department each malfunction that occurs at this Title V facility. For purposes of this condition a malfunction is defined as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment or a process to operate in a normal or usual manner that may result in an increase in air emissions.
- (b) When the malfunction poses an imminent and substantial danger to the public health and safety or harm to the environment, the notification shall be submitted to the Department no later than one hour after the incident.
- (1) The notice shall describe the:
- (i) name and location of the facility;
  - (ii) nature and cause of the malfunction or breakdown;
  - (iii) time when the malfunction or breakdown was first observed;
  - (iv) expected duration of excess emissions; and
  - (v) estimated rate of emissions.
- (2) The owner or operator shall notify the Department immediately when corrective measures have been accomplished.
- (3) Subsequent to the malfunction, the owner or operator shall submit a full report on the malfunction to the Department within 15 days, if requested.
- (4) The owner or operator shall submit reports on the operation and maintenance of the source to the Regional Air Program Manager at such intervals and in such form and detail as may be required by the Department. Information required in the reports may include, but is not limited to, process weight rates, firing rates, hours of operation, and maintenance schedules.
- (c) Malfunctions shall be reported to the Department at the following address:

PADEP  
Office of Air Quality  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
(412) 442-4000

**# 015 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- (a) N/A.

**SECTION C. Site Level Requirements**

(b) N/A.

(c) With respect to reporting, the permit shall incorporate the applicable reporting requirements and require the following:

(1) Submittal of reports of required monitoring at least every 6 months. Instances of deviations from permit requirements shall be clearly identified in the reports. Required reports shall be certified by a responsible official.

(2) Reporting of deviations from permit requirements within the time required by the terms and conditions of the permit including those attributable to upset conditions as defined in the permit, the probable cause of the deviations and corrective actions or preventive measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source.

**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

Owner/operator shall submit the semi-annual monitoring reports for this facility by January 31 and July 31 of each year. The January 31 semi-annual monitoring report shall cover the period from July 1 through December 31. This semi-annual monitoring report may be included in January 31 Title V Compliance Certification required by Title 25 PA Code § 127.513. The July 31 semi-annual monitoring report shall cover the period from January 1 through June 30. However, in accordance with Title 25 PA Code § 127.511(c), in no case shall the semi-annual monitoring report be submitted less often than every six (6) months. This may require that an interim semi-annual monitoring report (covering a period less than six (6) months) be submitted to bring the facility into compliance with this schedule.

**# 017 [25 Pa. Code §127.513]****Compliance certification.**

Permittee shall submit Compliance Certification Forms sufficient to demonstrate compliance with terms and conditions contained in the permit. Each Compliance Certification shall include the following:

- (a) The identification of each term or condition of the permit that is the basis of the certification.
- (b) The compliance status.
- (c) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (d) Whether compliance was continuous or intermittent.
- (e) Other facts the Department may require to determine the compliance status of the source.

Compliance Certifications shall be submitted to the Administrator of the EPA, as well as to the Department. EPA requests that Compliance Certifications be e-mailed to them at the following address: R3\_APD\_Permits@epa.gov

**# 018 [25 Pa. Code §127.513]****Compliance certification.**

Owner/operator shall submit a Title V Compliance Certification for this facility by January 31 of each year. The Title V Compliance Certification shall cover the previous calendar year, for the period January 1 through December 31. However, in accordance with Title 25 PA Code § 127.513(5)(i), in no case shall the Title V Compliance Certification be submitted less often than annually. This may require that an interim Title V Compliance Certification (covering a period less than one year) be submitted to bring the facility into compliance with this schedule.

**# 019 [25 Pa. Code §135.21]****Emission statements**

(a) Except as provided in subsection (d), this section applies to stationary sources or facilities:

- (1) Located in an area designated by the Clean Air Act as a marginal, moderate, serious, severe or extreme ozone nonattainment area and which emit oxides of nitrogen or VOC.
- (2) Not located in an area described in subparagraph (1) and included in the Northeast Ozone Transport Region which

**SECTION C. Site Level Requirements**

emit or have the potential to emit 100 tons or more oxides of nitrogen or 50 tons or more of VOC per year.

(b) The owner or operator of each stationary source emitting oxides of nitrogen or VOC's shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of oxides of nitrogen and VOCs from that source for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based. The statement shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

(c) Annual emission statements are due by March 1 for the preceding calendar year beginning with March 1, 1993, for calendar year 1992 and shall provide data consistent with requirements and guidance developed by the EPA. The guidance document is available from: United States Environmental Protection Agency, 401 M. Street, S.W., Washington, D.C. 20460. The Department may require more frequent submittals if the Department determines that one or more of the following applies:

- (1) A more frequent submission is required by the EPA.
- (2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the act.

(d) Subsection (a) does not apply to a class or category of stationary sources which emits less than 25 tons per year of VOC's or oxides of nitrogen, if the Department in its submissions to the Administrator of the EPA under section 182(a)(1) or (3)(B)(ii) of the Clean Air Act (42 U.S.C.A. 7511a(a)(1) or (3)(B)(ii)) provides an inventory of emissions from the class or category of sources based on the use of the emission factors established by the Administrator or other methods acceptable to the Administrator. The Department will publish in the Pennsylvania Bulletin a notice of the lists of classes or categories of sources which are exempt from the emission statement requirement under this subsection.

**# 020 [25 Pa. Code §135.3]****Reporting**

(a) The owner or operator shall submit by March 1 of each year a source report for the preceding calendar year. The report shall include information for all previously reported sources, new sources which were first operated during the proceeding calendar year and sources modified during the same period which were not previously reported.

(b) The owner or operator may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

**VI. WORK PRACTICE REQUIREMENTS.****# 021 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
- (3) Paving and maintenance of roadways.
- (4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

**# 022 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with Condition 14 of Operating Permit 63-308-038, owner/operator shall have access to two Certified Visible Emission Evaluators at all times.

**SECTION C. Site Level Requirements****VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VIII. COMPLIANCE CERTIFICATION.**

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to Title V General Requirements).

**IX. COMPLIANCE SCHEDULE.**

No compliance milestones exist.

**\*\*\* Permit Shield In Effect \*\*\***

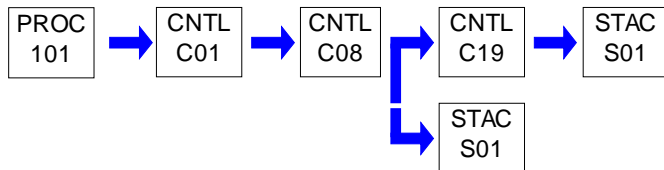
**SECTION D. Source Level Requirements**

Source ID: 101

Source Name: ROASTER

Source Capacity/Throughput:	1.000 Tons/HR	HIGH SULFUR FEED
	8.600 MCF/HR	Natural Gas
	1.200 Tons/HR	LOW SULFUR FEED

Conditions for this source occur in the following groups: 001 SIX ROASTERS, HIGH SULFUR FEEDSTOCK



This source occurs in alternate operation "LOW SULFUR FEEDSTOCKS"

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



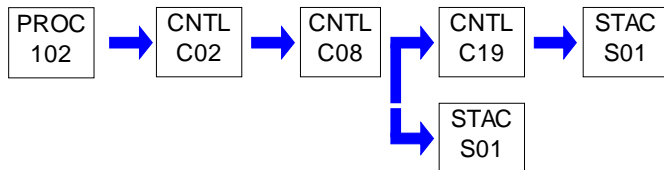
**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: ROASTER

Source Capacity/Throughput:	1.000 Tons/HR	HIGH SULFUR FEED
	8.600 MCF/HR	NATURAL GAS
	1.200 Tons/HR	LOW SULFUR FEED

Conditions for this source occur in the following groups: 001 SIX ROASTERS, HIGH SULFUR FEEDSTOCK



This source occurs in alternate operation "LOW SULFUR FEEDSTOCKS"

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



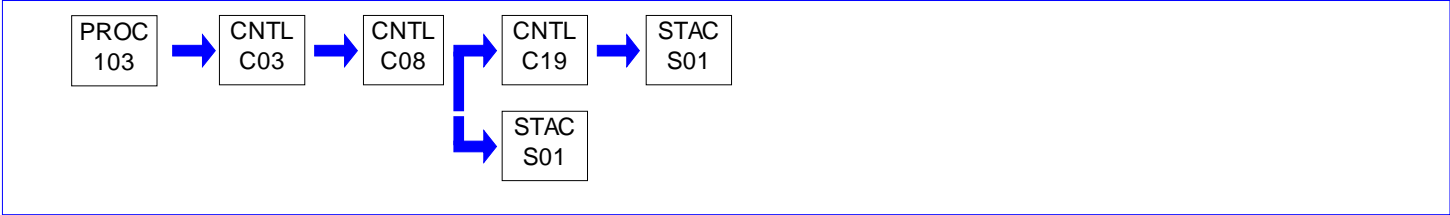
**SECTION D. Source Level Requirements**

Source ID: 103

Source Name: ROASTER

Source Capacity/Throughput:	1.750 Tons/HR	HIGH SULFUR FEED
	12.500 MCF/HR	Natural Gas
	2.000 Tons/HR	LOW SULFUR FEEDS

Conditions for this source occur in the following groups: 001 SIX ROASTERS, HIGH SULFUR FEEDSTOCK



This source occurs in alternate operation "LOW SULFUR FEEDSTOCKS"

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

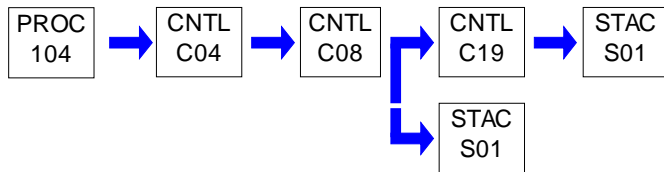
**SECTION D. Source Level Requirements**

Source ID: 104

Source Name: ROASTER

Source Capacity/Throughput:	1.750 Tons/HR	HIGH SULFUR FEED
	12.500 MCF/HR	Natural Gas
	2.000 Tons/HR	LOW SULFUR FEED

Conditions for this source occur in the following groups: 001 SIX ROASTERS, HIGH SULFUR FEEDSTOCK



This source occurs in alternate operation "LOW SULFUR FEEDSTOCKS"

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

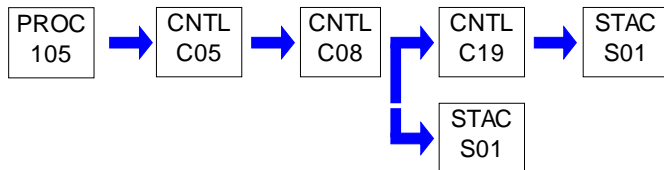
**SECTION D. Source Level Requirements**

Source ID: 105

Source Name: ROASTER

Source Capacity/Throughput:	2.000 Tons/HR	HIGH SULFUR FEED
	16.300 MCF/HR	Natural Gas
	2.200 Tons/HR	LOW SULFUR FEED

Conditions for this source occur in the following groups: 001 SIX ROASTERS, HIGH SULFUR FEEDSTOCK



This source occurs in alternate operation "LOW SULFUR FEEDSTOCKS"

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

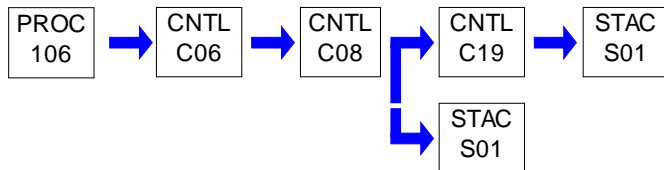
**SECTION D. Source Level Requirements**

Source ID: 106

Source Name: ROASTER

Source Capacity/Throughput:	2.000 Tons/HR	HIGH SULFUR FEED
	16.300 MCF/HR	Natural Gas
	2.200 Tons/HR	LOW SULFUR FEED

Conditions for this source occur in the following groups: 001 SIX ROASTERS, HIGH SULFUR FEEDSTOCK



This source occurs in alternate operation "LOW SULFUR FEEDSTOCKS"

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

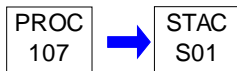
Source ID: 107

Source Name: ACID PLANT

Source Capacity/Throughput:

10.000 Tons/HR

SULFURIC ACID

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

# 001 [25 Pa. Code §123.13]

**Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 6 of Operating Permit 63-308-038 SO<sub>2</sub> emissions generated during the processing of high sulfur feedstocks shall not exceed 50 ppm, or a total of 30 tons of SO<sub>2</sub> per year from all six Roasters 101 through 106, after control by the multi-cyclones, the electrostatic precipitator, and the sulfuric acid plant.

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 7 of Operating Permit 63-308-038, particulate emissions from the sulfuric acid plant shall not exceed 0.04 grains per dry standard cubic foot.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

SO<sub>2</sub> emissions from the sulfuric acid plant shall be calculated by multiplying the annual average SO<sub>2</sub> discharge concentration by an emission factor of 1.2 tons SO<sub>2</sub> per ppm SO<sub>2</sub>. This characteristic emission factor is derived from the design specifications of the Acid Plant. The calculations and records of materials processed shall be made available to the Department upon request.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

**# 005 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

In the event of a malfunction at the acid plant necessitating a shutdown of that facility, the acid plant will be shut down, product will be removed from the roasters supplying the acid plant, and all gases will be vented out of the main stack. Under this scenario, permittee shall comply with the malfunction reporting requirement established elsewhere in this TVOP.

**VII. ADDITIONAL REQUIREMENTS.**

**# 006 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

Source ID 107, ACID PLANT is the same unit as Control Device C19, ACID PLANT. For reporting purposes, ACID PLANT is carried in the emission database as Source 107. It is important to note, however, that the ACID PLANT is actually a control device, and that it is NOT subject to 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 108

Source Name: NONMETALLIC MINERAL PLANT

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION D. Source Level Requirements**

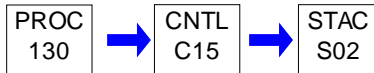
Source ID: 130

Source Name: ALUMINOTHERMIC PROCESS

Source Capacity/Throughput:

15.000 Tons/HR

FERROMOLY ALLOYS

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

(a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.

(b) No person may permit the emission into the outdoor atmosphere of particulate matter from any process listed in the following table, at any time, either in excess of the rate calculated by the formula in paragraph (2) or in such a manner that the concentration of particulate matter in the effluent gas exceeds 0.02 grains per dry standard cubic foot, whichever is greater:

## (1) Table

Process	Process Factor, F (in pounds per ton)
Ferroalloy production furnace	0.3 (product)

## (2) Formula

$$A = 0.76E^{(0.42)}$$

where:

A = Allowable emissions in pounds per hour.

E = Emission index = F x W pounds per hour.

F = Process factor in pounds per unit, and

W = Production or charging rate in units per hour.

The factor F shall be obtained from the table in paragraph (1). The units for F and W shall be compatible.

(3) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix B.

(c) N/A

(d) N/A

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

SO<sub>2</sub> emissions from this process shall not exceed 2.5 tons per year. SO<sub>2</sub> emissions shall be determined using material balance calculations. These calculations and supporting documentation shall be kept on site for five years, and shall be made available to the Department upon request.

**SECTION D. Source Level Requirements****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11526]****SUBPART YYYYYY - National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloys Production Facilities****What are the standards for new and existing ferroalloys production facilities?**

(a) You must not discharge to the atmosphere visible emissions (VE) from the control device that exceed 5 percent of accumulated occurrences in a 60-minute observation period.

(b) You must not discharge to the atmosphere fugitive PM emissions from the furnace building containing the electrometallurgical operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 60 percent.

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11530]****SUBPART YYYYYY - National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloys Production Facilities****What parts of the General Provisions apply to my facility?**

Table 1 of 40 CFR 63, Subpart YYYYYY shows which parts of the General Provisions in 40 CFR §§63.1 through 63.16 apply to you.

Table 1 to Subpart YYYYYY of Part 63-Applicability of General Provisions

As required in §63.11530, you must meet each requirement in the following table that applies to you.

Citation Subject

63.1 Applicability.

63.2 Definitions.

63.3 Units and abbreviations.

63.4 Prohibited activities.

63.5 Construction/reconstruction.

63.6 Compliance with standards and maintenance.

63.8 Monitoring.

63.9 Notification.

63.10 Recordkeeping and reporting.

63.12 State authority and delegations.

63.13 Addresses of State air pollution control agencies and EPA regional offices.

63.14 Incorporation by reference.

63.15 Availability of information and confidentiality.

63.16 Performance track provisions.

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11531]****SUBPART YYYYYY - National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloys Production Facilities****Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

## SECTION D. Source Level Requirements

- (1) Approval of an alternative nonopacity emissions standard under §63.6(g).
- (2) Approval of an alternative opacity emissions standard under §63.6(h)(9).
- (3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90.
- (4) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" under is defined in §63.90.
- (5) Approval of a major change to recordkeeping and reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

### II. TESTING REQUIREMENTS.

#### # 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11528]

#### SUBPART YYYYYY - National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloys Production Facilities

#### What are the performance test and compliance requirements for new and existing sources?

##### (a) Initial compliance demonstration deadlines.

You must conduct an initial Method 22 (appendix A-7 of 40 CFR part 60) test following the requirements of paragraph (b)(1) of this section of each existing electrometallurgical operation control device and an initial Method 9 observation following the requirements of paragraph (c)(1) of this section from the furnace building due to electrometallurgical operations no later than 60 days after your applicable compliance date. For any new electrometallurgical operation control device, you must conduct an initial Method 22 test following the requirements of paragraph (b)(1) of this section within 15 days of startup of the control device.

##### (b) Visible emissions limit compliance demonstration.

(1) You must conduct a Method 22 (appendix A-7 of 40 CFR part 60) test to determine that VE from the control device do not exceed the emission standard specified in §63.11526(a). For a fabric filter, conduct the test for at least 60 minutes at the fabric filter monovalent or outlet stack(s), as applicable. For a wet scrubber, conduct the test for at least 60 minutes at the outlet stack(s).

(2) You must conduct a semiannual Method 22 test using the procedures specified in paragraph (b)(1) of this section.

##### (c) Furnace building opacity.

(1) You must conduct an opacity test for fugitive emissions from the furnace building according to the procedures in §63.6(h) and Method 9 (appendix A-4 of 40 CFR part 60). The test must be conducted for at least 60 minutes and shall include tapping the furnace or reaction vessel. The observation must be focused on the part of the building where electrometallurgical operation fugitive emissions are most likely to be observed.

(2) Conduct subsequent Method 9 tests no less frequently than every 6 months and each time you make a process change likely to increase fugitive emissions.

(3) After the initial Method 9 performance test, as an alternative to the Method 9 performance test, you may monitor VE using Method 22 (appendix A-7 of 40 CFR part 60) for subsequent semi-annual compliance demonstrations. The Method 22 test is successful if no VE are observed for 90 percent of the readings over the furnace cycle (tap to tap) or 60 minutes, whichever is longer. If VE are observed greater than 10 percent of the time over the furnace cycle or 60 minutes, whichever is longer, then the facility must conduct another test as soon as possible, but no later than 15 calendar days after the Method 22 test using Method 9 (appendix A-4 of 40 CFR part 60) as specified in paragraph (c)(1) of this section.

### III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

### IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.****# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11529]****SUBPART YYYYYY - National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloys Production Facilities****What are the notification, reporting, and recordkeeping requirements?****(a) Initial notification.**

You must submit the Initial Notification required by §63.9(b)(2) of the General Provisions no later than 120 days after the date of publication of this final rule in the Federal Register. The Initial Notification must include the information specified in §63.9(b)(2)(i) through (b)(2)(iv).

**(b) Notification of compliance status.**

You must submit a Notification of Compliance Status in accordance with §63.9(h) of the General Provisions before the close of business on the 30th day following the completion of the initial compliance demonstration. This notification must include the following:

- (1) The results of Method 22 (appendix A-7 of 40 CFR part 60) test for VE as required by §63.11528(a);
- (2) If you have installed a bag leak detection system, documentation that the system satisfies the design requirements specified in §63.11527(a)(3) and that you have prepared a site-specific monitoring plan that meets the requirements specified in §63.11527(a)(5);
- (3) The results of the Method 9 (appendix A-4 of 40 CFR part 60) test for building opacity as required by §63.11528(a).

**(c) Annual compliance certification.**

If you own or operate an affected source, you must submit an annual certification of compliance according to paragraphs (c)(1) through (c)(4) of this section.

- (1) The results of any daily or weekly visual monitoring events required by §63.11527(a)(1) and (b)(1), alarm-based visual monitoring at sources equipped with bag leak detection systems as required by §63.11527(a)(4), or readings outside of the operating range at sources using CPMS on wet scrubbers required by §63.11527(b)(4).
- (2) The results of the follow up Method 22 (appendix A-7 of 40 CFR part 60) tests that are required if VE are observed during the daily or weekly visual monitoring, alarm-based visual monitoring, or out-of-range operating readings as described in paragraph (c)(1) of this section.
- (3) The results of the Method 22 (appendix A-7 of 40 CFR part 60) or Method 9 (appendix A-4 of 40 CFR part 60) tests required by §63.11528(b) and (c), respectively.
- (4) If you operate a bag leak detection system for a fabric filter or a CPMS for a wet scrubber, submit annual reports according to the requirements in §63.10(e) and include summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable).

**(d) You must keep the records specified in paragraphs (d)(1) through (d)(2) of this section.**

- (1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification that you submitted to comply with this subpart and all documentation supporting any Initial Notification, Notification of Compliance Status, and annual compliance certifications that you submitted.
- (2) You must keep the records of all daily or weekly visual, Method 22 (appendix A-7 of 40 CFR part 60), and Method 9 (appendix A-4 of 40 CFR part 60) monitoring data required by §63.11527 and the information identified in paragraphs (d)(2)(i) through (d)(2)(v) of this section.
  - (i) The date, place, and time of the monitoring event;
  - (ii) Person conducting the monitoring;
  - (iii) Technique or method used;
  - (iv) Operating conditions during the activity; and
  - (v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem (e.g., VE) to the time that monitoring indicated proper operation.

**(e) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).****(f) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action.****(g) You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.**

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 008 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

The aluminothermic process produces ferro-molybdenum alloys. It consists of raw material unloading and storage, mixing and weighing of raw materials, smelting, tapping, crushing, screening, and packaging.

Emissions of particulate matter shall be controlled by a baghouse. Baghouse collection points shall be located and maintained at all transfer points.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

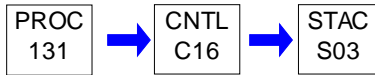
Source ID: 131

Source Name: PURE OXIDE PRODUCTION

Source Capacity/Throughput:

0.500 Tons/HR

MOLYBDENUM

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

# 001 [25 Pa. Code §123.21]

**General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

Permittee shall comply with manufacturer's recommendations and good operating practices relative to the monitoring, inspection, recordkeeping and maintenance of the baghouses.

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 6 of Plan Approval 63-308-039, visible emissions from pure oxide baghouse vents shall not exceed 10% as measured using EPA Method 9.

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 5 of Plan Approval 63-308-039, particulate emissions from product collection baghouse vents for this source shall not exceed 0.02 grains per dry standard cubic foot.

# 005 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 8 of Plan Approval 63-308-039, SO<sub>2</sub> emissions from this process shall not exceed 2.5 tons per year. SO<sub>2</sub> emissions shall be determined using material balance calculations. These calculations and supporting documentation shall be kept on site for five years, and shall be made available to the Department upon request.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

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

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

**# 006 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

In accordance with Condition 7 of Plan Approval 63-308-039, permittee shall keep replacement bags on hand at all times for the Pure Oxide pollution control devices.

**VII. ADDITIONAL REQUIREMENTS.**

**# 007 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

The pure oxide process consists of an electric furnace, various product collection baghouses, and supporting equipment including the pneumatic feed transfer system, the product densifying, drying and packaging system, and tails handling equipment. Product collection baghouses consist of the following:

Raw Material Transfer Baghouse, Dracco, 3000 ACFM  
 Oxide Furnace Primary Furnace, Mikropul 100S-10-20"C", 16000 ACFM  
 Oxide Furnace Secondary Baghouse, Mikropul 36S-8-30, 3500 ACFM  
 Packaging Baghouse, Mikropul 36S-8-30, 2000 ACFM  
 Tails Baghouse, Mikropul 36S-8-30, 2000 ACFM

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 132

Source Name: EMERGENCY GENERATORS (4 @ 454 HP EACH)

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
Am I subject to this subpart?**

(4)(iv) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?**

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?**

Table 1 to Subpart JJJJ of Part 60

NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines Greater than or Equal to 100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines Greater than or Equal to 25 HP

Engine Type	Maximum Engine Power	Manufacture Date	Emission Standards (a)					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC (b)	NO <sub>x</sub>	CO	VOC (b)
Emergency	HP greater than or equal to 130	1/1/2009	2.0	4.0	1.0	160	540	86

(a) Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

(b) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?**

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**



**SECTION D. Source Level Requirements**

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

(f) If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine

**SECTION D. Source Level Requirements**

and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4237]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?**

(b) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?**

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less

**SECTION D. Source Level Requirements**

than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

- (1) Name and address of the owner or operator;
- (2) The address of the affected source;
- (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- (4) Emission control equipment; and
- (5) Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in §60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section.

- (1) The report must contain the following information:
  - (i) Company name and address where the engine is located.
  - (ii) Date of the report and beginning and ending dates of the reporting period.
  - (iii) Engine site rating and model year.
  - (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
  - (v) Hours operated for the purposes specified in §60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(2)(ii) and (iii).
  - (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4243(d)(2)(ii) and (iii).
  - (vii) Hours spent for operation for the purposes specified in §60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).



**SECTION D. Source Level Requirements**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: 001 SIX ROASTERS, HIGH SULFUR FEEDSTOCK

Group Description:

Sources included in this group

ID	Name
101	ROASTER
102	ROASTER
103	ROASTER
104	ROASTER
105	ROASTER
106	ROASTER

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

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

SO2 emissions generated during the processing of high sulfur feedstocks shall be controlled by the sulfuric acid plant.

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

"High sulfur feedstocks" are those sulfur-containing feedstocks which, when roasted in the aggregate, result in result in emissions which cannot meet the 500 ppm SO2 criteria entering the breach of the main stack and therefore require treatment in the pollution control facility/acid plant (107/C19).

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 6 of Operating Permit 63-308-038 SO2 emissions generated during the processing of high sulfur feedstocks shall not exceed 50 ppm, or a total of 30 tons of SO2 per year from all six Roasters 101 through 106, after control by the multi-cyclones, the electrostatic precipitator, and the sulfuric acid plant.

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 7 of Operating Permit 63-308-038, particulate emissions from the roasters, after control by the multi-cyclones, the electrostatic precipitator, and the sulfuric acid plant, shall not exceed 0.04 grains per dry standard cubic foot.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

# 005 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

In accordance with Condition 15 of Operating Permit 63-308-038, the owner/operator shall visually check the main roaster stack for opacity between 6:30 and 7:30 a.m., 11:30 am and 12:30 pm, and 4:30 and 5:30 p.m. each day that a roaster is operating, and maintain a log of observations. Cloudy, rainy conditions shall be noted in the log, the appearance of the stack, and the name and title of the person making the observation shall be noted in the log. Upon observing any visible plume whatsoever, the observer shall alert the Production Supervisor, and a Certified Visible Emission Evaluator. The Evaluator will then make a visual determination of the opacity of the emissions per 40 CFR 60, Appendix A, Method 9. A completed "Visible Emissions Observation Record" (Document ER-AQ-39, Rev. 8/79) shall be attached to the roaster logs.

**SECTION E. Source Group Restrictions.****IV. RECORDKEEPING REQUIREMENTS.****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

SO<sub>2</sub> emissions from the sulfuric acid plant shall be calculated by multiplying the annual average SO<sub>2</sub> discharge concentration by an emission factor of 1.2 tons SO<sub>2</sub> per ppm SO<sub>2</sub>. This characteristic emission factor is derived from the design specifications of the Acid Plant. The calculations and records of materials processed shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

High sulfur feedstocks approved for processing in Roasters 1 through 6 are:

Molybdenum disulfide,  
Iron pyrite.

Additional high sulfur feedstocks may be processed with written Departmental notification in accordance with 25 PA Code Section 127.14.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: "LOW SULFUR FEEDSTOCKS"

**#001 CHANGES FROM NORMAL OPERATION**

"LOW SULFUR FEEDSTOCKS" are those sulfur-containing feedstocks which, when roasted in the aggregate, result in an SO<sub>2</sub> concentration entering the breach of the main stack of less than 500 ppm SO<sub>2</sub>.

When this source is being used for the roasting of low sulfur feedstocks, exhaust from this source shall be routed to the multi-cyclones and the electrostatic precipitator only. Control of emissions by the sulfuric acid plant is not required in this alternate operating scenario, as net SO<sub>2</sub> concentrations are less than or equal to 500 ppm.

Sources included in this Alternative Operation:

ID	Name	Source Type
101	ROASTER	Process

Alternative Operation Map:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

In accordance with 25 PA Code Section 123.21, SO<sub>2</sub> emissions generated during the roasting of low sulfur feedstocks shall not exceed 500 ppm, by volume, dry basis.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Particulate emissions resulting from the roasting of low sulfur feedstocks shall be controlled with the multi-cyclones and the electrostatic precipitator. These particulate emissions shall not exceed 0.04 grains per dry standard cubic foot, after controls.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Total SO<sub>2</sub> emissions resulting from the roasting of low sulfur feedstocks in Roasters 1 through 6 shall not exceed 214.5 tons per year.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.****# 004 [25 Pa. Code §123.21]****General**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from the roaster during the roasting of low sulfur feedstocks shall be calculated as follows:

The mass of the SO<sub>2</sub> emissions is calculated based on total sulfur losses across the roaster from the low sulfur feedstock. Unless otherwise demonstrated through laboratory analyses of finished product, it is assumed that all sulfur losses are converted to SO<sub>2</sub>. Based on the design air flow for the roaster, feedstock feed rate will be limited such that the 500 ppm SO<sub>2</sub>

**SECTION F. Alternative Operation Requirements.**

emission is not exceeded.

For example, the total design air flow for roasters 3, 4, and 5 is 23,350 scfm. At 500 ppm SO<sub>2</sub>, the pounds of SO<sub>2</sub> present in 23,350 scfm are equal to 124.5 pounds per hour SO<sub>2</sub>, or 62.25 pounds sulfur in the low sulfur feedstock per hour.

Permittee will limit the rate of low sulfur feedstock to the roaster to a rate that is equal to or less than 62.25 pounds sulfur per hour. The sulfur limit would be prorated dependent on the number of roasters being operated on low sulfur feedstock at any point in time.

Calculations and records of materials processed shall be made available to the Department upon request.

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from all roasting of low sulfur feedstocks in roasters 1 through 6 shall be determined using a material balance calculation. Unless otherwise demonstrated through laboratory analyses of finished product, it shall be assumed that all sulfur in the incoming low sulfur feedstock is converted to SO<sub>2</sub> in the roasters.

**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with Condition 15 of Operating Permit 63-308-038, the owner/operator shall visually check the main roaster stack for opacity between 6:30 and 7:30 a.m., 11:30 am and 12:30 pm, and 4:30 and 5:30 p.m. each day that a roaster is operating, and maintain a log of observations. Cloudy, rainy conditions shall be noted in the log, the appearance of the stack, and the name and title of the person making the observation shall be noted in the log. Upon observing any visible plume whatsoever, the observer shall alert the Production Supervisor, and a Certified Visible Emission Evaluator. The Evaluator will then make a visual determination of the opacity of the emissions per 40 CFR 60, Appendix A, Method 9. A completed "Visible Emissions Observation Record" (Document ER-AQ-39, Rev. 8/79) shall be attached to the roaster logs.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Low sulfur feedstocks approved for processing in this source, under this alternate operating scenario, are the following:

- Nickel cobalt concentrate,
- Nickel filter cakes,
- Cobalt filter cakes,
- Spent & off-spec fatty nickel catalyst,
- Spent & off spec copper chromite catalyst,
- Spent petrochemical catalyst,
- Nickel/cobalt metal grindings,
- Copper carbon/copper nickel concentrates,
- Raney nickel, copper & cobalt catalysts,
- Edible & inedible metal bearing catalysts,
- Metal bearing grindings, chips, turnings, swarf or scale,
- Metal hydroxide filter cakes,
- Spent hydrogenation catalyst,



**SECTION F. Alternative Operation Requirements.**

Nickel, cobalt, carbon carbonates, pellets, fines,  
Tungsten carbide,  
Vanadium ore (vanadium concentrate).

Additional low sulfur feedstocks may be processed with written Departmental notification in accordance with 25 PA Code Section 127.14.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Roasters being used to process low sulfur feedstocks shall be operated in accordance with the following procedure:

- A. Maintain minimum of 1000F on two of the top three hearths identified as hearths 2, 3, or 4.
- B. Record hearth temperatures manually every two hours.
- C. Visually inspect hearths 1, 2, 3, and 4. Record observations.
- D. At end of each work shift, record specific burners operating for each furnace.
- E. While stripping (cleaning) a furnace for the purpose of switching feed material and when shutting down for maintenance or any other purpose, maintain minimum temperature of 1000F for at least two hours on two of the top three hearths identified as hearths 2, 3, or 4.
- F. Upon power-up from a utility electric or natural gas outage, do not feed furnace until a temperature of 1000F is obtained on hearths 2 and 3.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: "LOW SULFUR FEEDSTOCKS"

**#001 CHANGES FROM NORMAL OPERATION**

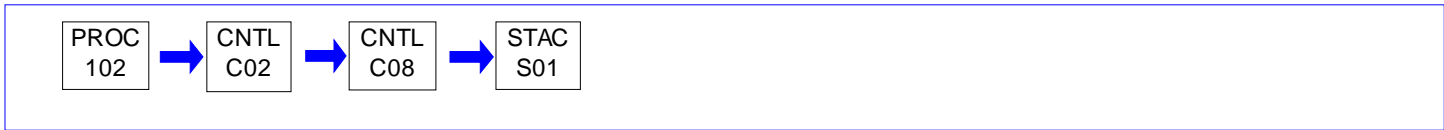
"LOW SULFUR FEEDSTOCKS" are those sulfur-containing feedstocks which, when roasted in the aggregate, result in an SO<sub>2</sub> concentration entering the breach of the main stack of less than 500 ppm SO<sub>2</sub>.

When this source is being used for the roasting of low sulfur feedstocks, exhaust from this source shall be routed to the multi-cyclones and the electrostatic precipitator only. Control of emissions by the sulfuric acid plant is not required in this alternate operating scenario, as net SO<sub>2</sub> concentrations are less than or equal to 500 ppm.

Sources included in this Alternative Operation:

ID	Name	Source Type
102	ROASTER	Process

Alternative Operation Map:



**I. RESTRICTIONS.**

**Emission Restriction(s).**

<p><b># 001 [25 Pa. Code §123.21]</b>  <b>General</b>            In accordance with 25 PA Code Section 123.21, SO<sub>2</sub> emissions generated during the roasting of low sulfur feedstocks shall not exceed 500 ppm, by volume, dry basis.</p>
<p><b># 002 [25 Pa. Code §127.441]</b>  <b>Operating permit terms and conditions.</b>            Particulate emissions resulting from the roasting of low sulfur feedstocks shall be controlled with the multi-cyclones and the electrostatic precipitator. These particulate emissions shall not exceed 0.04 grains per dry standard cubic foot, after controls.</p>
<p><b># 003 [25 Pa. Code §127.441]</b>  <b>Operating permit terms and conditions.</b>            Total SO<sub>2</sub> emissions resulting from the roasting of low sulfur feedstocks in Roasters 1 through 6 shall not exceed 214.5 tons per year.</p>

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

<p><b># 004 [25 Pa. Code §123.21]</b>  <b>General</b>            Compliance with the SO<sub>2</sub> limitation of 500 ppm from the roaster during the roasting of low sulfur feedstocks shall be calculated as follows:             The mass of the SO<sub>2</sub> emissions is calculated based on total sulfur losses across the roaster from the low sulfur feedstock. Unless otherwise demonstrated through laboratory analyses of finished product, it is assumed that all sulfur losses are converted to SO<sub>2</sub>. Based on the design air flow for the roaster, feedstock feed rate will be limited such that the 500 ppm SO<sub>2</sub></p>
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**SECTION F. Alternative Operation Requirements.**

emission is not exceeded.

For example, the total design air flow for roasters 3, 4, and 5 is 23,350 scfm. At 500 ppm SO<sub>2</sub>, the pounds of SO<sub>2</sub> present in 23,350 scfm are equal to 124.5 pounds per hour SO<sub>2</sub>, or 62.25 pounds sulfur in the low sulfur feedstock per hour. Permittee will limit the rate of low sulfur feedstock to the roaster to a rate that is equal to or less than 62.25 pounds sulfur per hour. The sulfur limit would be prorated dependent on the number of roasters being operated on low sulfur feedstock at any point in time.

Calculations and records of materials processed shall be made available to the Department upon request.

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from all roasting of low sulfur feedstocks in roasters 1 through 6 shall be determined using a material balance calculation. Unless otherwise demonstrated through laboratory analyses of finished product, it shall be assumed that all sulfur in the incoming low sulfur feedstock is converted to SO<sub>2</sub> in the roasters.

**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with Condition 15 of Operating Permit 63-308-038, the owner/operator shall visually check the main roaster stack for opacity between 6:30 and 7:30 a.m., 11:30 am and 12:30 pm, and 4:30 and 5:30 p.m. each day that a roaster is operating, and maintain a log of observations. Cloudy, rainy conditions shall be noted in the log, the appearance of the stack, and the name and title of the person making the observation shall be noted in the log. Upon observing any visible plume whatsoever, the observer shall alert the Production Supervisor, and a Certified Visible Emission Evaluator. The Evaluator will then make a visual determination of the opacity of the emissions per 40 CFR 60, Appendix A, Method 9. A completed "Visible Emissions Observation Record" (Document ER-AQ-39, Rev. 8/79) shall be attached to the roaster logs.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Roasters being used to process low sulfur feedstocks shall be operated in accordance with the following procedure:

- A. Maintain minimum of 1000F on two of the top three hearths identified as hearths 2, 3, or 4.
- B. Record hearth temperatures manually every two hours.
- C. Visually inspect hearths 1, 2, 3, and 4. Record observations.
- D. At end of each work shift, record specific burners operating for each furnace.
- E. While stripping (cleaning) a furnace for the purpose of switching feed material and when shutting down for maintenance or any other purpose, maintain minimum temperature of 1000F for at least two hours on two of the top three hearths identified as hearths 2, 3, or 4.
- F. Upon power-up from a utility electric or natural gas outage, do not feed furnace until a temperature of 1000F is obtained on hearths 2 and 3.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

## SECTION F. Alternative Operation Requirements.

Low sulfur feedstocks approved for processing in this source, under this alternate operating scenario, are the following:

Nickel cobalt concentrate,  
Nickel filter cakes,  
Cobalt filter cakes,  
Spent & off-spec fatty nickel catalyst,  
Spent & off spec copper chromite catalyst,  
Spent petrochemical catalyst,  
Nickel/cobalt metal grindings,  
Copper carbon/copper nickel concentrates,  
Raney nickel, copper & cobalt catalysts,  
Edible & inedible metal bearing catalysts,  
Metal bearing grindings, chips, turnings, swarf or scale,  
Metal hydroxide filter cakes,  
Spent hydrogenation catalyst,  
Nickel, cobalt, carbon carbonates, pellets, fines,  
Tungsten carbide,  
Vanadium ore (vanadium concentrate).

Additional low sulfur feedstocks may be processed with written Departmental notification in accordance with 25 PA Code Section 127.14.

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: "LOW SULFUR FEEDSTOCKS"

**#001 CHANGES FROM NORMAL OPERATION**

"LOW SULFUR FEEDSTOCKS" are those sulfur-containing feedstocks which, when roasted in the aggregate, result in an SO<sub>2</sub> concentration entering the breach of the main stack of less than 500 ppm SO<sub>2</sub>.

When this source is being used for the roasting of low sulfur feedstocks, exhaust from this source shall be routed to the multi-cyclones and the electrostatic precipitator only. Control of emissions by the sulfuric acid plant is not required in this alternate operating scenario, as net SO<sub>2</sub> concentrations are less than or equal to 500 ppm.

Sources included in this Alternative Operation:

ID	Name	Source Type
106	ROASTER	Process

Alternative Operation Map:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

In accordance with 25 PA Code Section 123.21, SO<sub>2</sub> emissions generated during the roasting of low sulfur feedstocks shall not exceed 500 ppm, by volume, dry basis.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Total SO<sub>2</sub> emissions resulting from the roasting of low sulfur feedstocks in Roasters 1 through 6 shall not exceed 214.5 tons per year.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Particulate emissions resulting from the roasting of low sulfur feedstocks shall be controlled with the multi-cyclones and the electrostatic precipitator. These particulate emissions shall not exceed 0.04 grains per dry standard cubic foot, after controls.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.****# 004 [25 Pa. Code §123.21]****General**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from the roaster during the roasting of low sulfur feedstocks shall be calculated as follows:

The mass of the SO<sub>2</sub> emissions is calculated based on total sulfur losses across the roaster from the low sulfur feedstock. Unless otherwise demonstrated through laboratory analyses of finished product, it is assumed that all sulfur losses are converted to SO<sub>2</sub>. Based on the design air flow for the roaster, catalyst feed rate will be limited such that the 500 ppm SO<sub>2</sub>

**SECTION F. Alternative Operation Requirements.**

emission is not exceeded.

For example, the total design air flow for roasters 3, 4, and 5 is 23,350 scfm. At 500 ppm SO<sub>2</sub>, the pounds of SO<sub>2</sub> present in 23,350 scfm are equal to 124.5 pounds per hour SO<sub>2</sub>, or 62.25 pounds sulfur in the low sulfur feedstock per hour.

Permittee will limit the rate of low sulfur feedstock to the roaster to a rate that is equal to or less than 62.25 pounds sulfur per hour. The sulfur limit would be prorated dependent on the number of roasters being operated on low sulfur feedstock at any point in time.

Calculations and records of materials processed shall be made available to the Department upon request.

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from all roasting of low sulfur feedstocks in roasters 1 through 6 shall be determined using a material balance calculation. Unless otherwise demonstrated through laboratory analyses of finished product, it shall be assumed that all sulfur in the incoming low sulfur feedstock is converted to SO<sub>2</sub> in the roasters.

**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with Condition 15 of Operating Permit 63-308-038, the owner/operator shall visually check the main roaster stack for opacity between 6:30 and 7:30 a.m., 11:30 am and 12:30 pm, and 4:30 and 5:30 p.m. each day that a roaster is operating, and maintain a log of observations. Cloudy, rainy conditions shall be noted in the log, the appearance of the stack, and the name and title of the person making the observation shall be noted in the log. Upon observing any visible plume whatsoever, the observer shall alert the Production Supervisor, and a Certified Visible Emission Evaluator. The Evaluator will then make a visual determination of the opacity of the emissions per 40 CFR 60, Appendix A, Method 9. A completed "Visible Emissions Observation Record" (Document ER-AQ-39, Rev. 8/79) shall be attached to the roaster logs.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Low sulfur feedstocks approved for processing in this source, under this alternate operating scenario, are the following:

- Nickel cobalt concentrate,
- Nickel filter cakes,
- Cobalt filter cakes,
- Spent & off-spec fatty nickel catalyst,
- Spent & off spec copper chromite catalyst,
- Spent petrochemical catalyst,
- Nickel/cobalt metal grindings,
- Copper carbon/copper nickel concentrates,
- Raney nickel, copper & cobalt catalysts,
- Edible & inedible metal bearing catalysts,
- Metal bearing grindings, chips, turnings, swarf or scale,
- Metal hydroxide filter cakes,
- Spent hydrogenation catalyst,

**SECTION F. Alternative Operation Requirements.**

Nickel, cobalt, carbon carbonates, pellets, fines,  
Tungsten carbide,  
Vanadium ore (vanadium concentrate).

Additional low sulfur feedstocks may be processed with written Departmental notification in accordance with 25 PA Code Section 127.14.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- A. Maintain minimum of 1000F on two of the top three hearths identified as hearths 2, 3, or 4.
- B. Record hearth temperatures manually every two hours.
- C. Visually inspect hearths 1, 2, 3, and 4. Record observations.
- D. At end of each work shift, record specific burners operating for each furnace.
- E. While stripping (cleaning) a furnace for the purpose of switching feed material and when shutting down for maintenance or any other purpose, maintain minimum temperature of 1000F for at least two hours on two of the top three hearths identified as hearths 2, 3, or 4.
- F. Upon power-up from a utility electric or natural gas outage, do not feed furnace until a temperature of 1000F is obtained on hearths 2 and 3.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: "LOW SULFUR FEEDSTOCKS"

**#001 CHANGES FROM NORMAL OPERATION**

"LOW SULFUR FEEDSTOCKS" are those sulfur-containing feedstocks which, when roasted in the aggregate, result in an SO<sub>2</sub> concentration entering the breach of the main stack of less than 500 ppm SO<sub>2</sub>.

When this source is being used for the roasting of low sulfur feedstocks, exhaust from this source shall be routed to the multi-cyclones and the electrostatic precipitator only. Control of emissions by the sulfuric acid plant is not required in this alternate operating scenario, as net SO<sub>2</sub> concentrations are less than or equal to 500 ppm.

Sources included in this Alternative Operation:

ID	Name	Source Type
104	ROASTER	Process

Alternative Operation Map:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

In accordance with 25 PA Code Section 123.21, SO<sub>2</sub> emissions generated during the roasting of low sulfur feedstocks shall not exceed 500 ppm, by volume, dry basis.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Total SO<sub>2</sub> emissions resulting from the roasting of low sulfur feedstocks in Roasters 1 through 6 shall not exceed 214.5 tons per year.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Particulate emissions resulting from the roasting of low sulfur feedstocks shall be controlled with the multi-cyclones and the electrostatic precipitator. These particulate emissions shall not exceed 0.04 grains per dry standard cubic foot, after controls.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.****# 004 [25 Pa. Code §123.21]****General**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from the roaster during the roasting of low sulfur feedstocks shall be calculated as follows:

The mass of the SO<sub>2</sub> emissions is calculated based on total sulfur losses across the roaster from the low sulfur feedstock. Unless otherwise demonstrated through laboratory analyses of finished product, it is assumed that all sulfur losses are converted to SO<sub>2</sub>. Based on the design air flow for the roaster, feedstock feed rate will be limited such that the 500 ppm SO<sub>2</sub>



**SECTION F. Alternative Operation Requirements.**

emission is not exceeded.

For example, the total design air flow for roasters 3, 4, and 5 is 23,350 scfm. At 500 ppm SO<sub>2</sub>, the pounds of SO<sub>2</sub> present in 23,350 scfm are equal to 124.5 pounds per hour SO<sub>2</sub>, or 62.25 pounds sulfur in the low sulfur feedstock per hour. Permittee will limit the rate of low sulfur feedstock to the roaster to a rate that is equal to or less than 62.25 pounds sulfur per hour. The sulfur limit would be prorated dependent on the number of roasters being operated on low sulfur feedstock at any point in time.

Calculations and records of materials processed shall be made available to the Department upon request.

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with Condition 15 of Operating Permit 63-308-038, the owner/operator shall visually check the main roaster stack for opacity between 6:30 and 7:30 a.m., 11:30 am and 12:30 pm, and 4:30 and 5:30 p.m. each day that a roaster is operating, and maintain a log of observations. Cloudy, rainy conditions shall be noted in the log, the appearance of the stack, and the name and title of the person making the observation shall be noted in the log. Upon observing any visible plume whatsoever, the observer shall alert the Production Supervisor, and a Certified Visible Emission Evaluator. The Evaluator will then make a visual determination of the opacity of the emissions per 40 CFR 60, Appendix A, Method 9. A completed "Visible Emissions Observation Record" (Document ER-AQ-39, Rev. 8/79) shall be attached to the roaster logs.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Roasters being used to process low sulfur feedstocks shall be operated in accordance with the following procedure:

- A. Maintain minimum of 1000F on two of the top three hearths identified as hearths 2, 3, or 4.
- B. Record hearth temperatures manually every two hours.
- C. Visually inspect hearths 1, 2, 3, and 4. Record observations.
- D. At end of each work shift, record specific burners operating for each furnace.
- E. While stripping (cleaning) a furnace for the purpose of switching feed material and when shutting down for maintenance or any other purpose, maintain minimum temperature of 1000F for at least two hours on two of the top three hearths identified as hearths 2, 3, or 4.
- F. Upon power-up from a utility electric or natural gas outage, do not feed furnace until a temperature of 1000F is obtained on hearths 2 and 3.

**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Low sulfur feedstocks approved for processing in this source, under this alternate operating scenario, are the following:

Nickel cobalt concentrate,  
 Nickel filter cakes,  
 Cobalt filter cakes,  
 Spent & off-spec fatty nickel catalyst,  
 Spent & off spec copper chromite catalyst,

## SECTION F. Alternative Operation Requirements.

Spent petrochemical catalyst,  
Nickel/cobalt metal grindings,  
Copper carbon/copper nickel concentrates,  
Raney nickel, copper & cobalt catalysts,  
Edible & inedible metal bearing catalysts,  
Metal bearing grindings, chips, turnings, swarf or scale,  
Metal hydroxide filter cakes,  
Spent hydrogenation catalyst,  
Nickel, cobalt, carbon carbonates, pellets, fines,  
Tungsten carbide,  
Vanadium ore (vanadium concentrate).

Additional low sulfur feedstocks may be processed with written Departmental notification in accordance with 25 PA Code Section 127.14.

## VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: "LOW SULFUR FEEDSTOCKS"

**#001 CHANGES FROM NORMAL OPERATION**

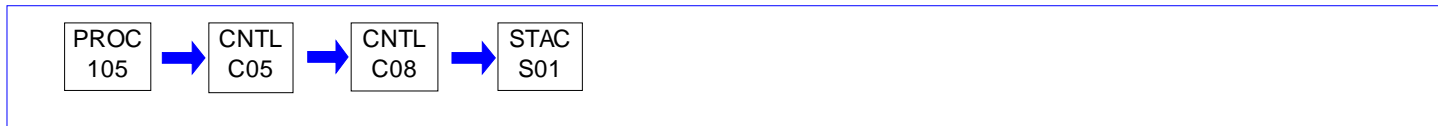
"LOW SULFUR FEEDSTOCKS" are those sulfur-containing feedstocks which, when roasted in the aggregate, result in an SO<sub>2</sub> concentration entering the breach of the main stack of less than 500 ppm SO<sub>2</sub>.

When this source is being used for the roasting of low sulfur feedstocks, exhaust from this source shall be routed to the multi-cyclones and the electrostatic precipitator only. Control of emissions by the sulfuric acid plant is not required in this alternate operating scenario, as net SO<sub>2</sub> concentrations would be less than or equal to 500 ppm.

Sources included in this Alternative Operation:

ID	Name	Source Type
105	ROASTER	Process

Alternative Operation Map:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

In accordance with 25 PA Code Section 123.21, SO<sub>2</sub> emissions generated during the roasting of low sulfur feedstocks shall not exceed 500 ppm, by volume, dry basis.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Total SO<sub>2</sub> emissions resulting from the roasting of low sulfur feedstocks in Roasters 1 through 6 shall not exceed 214.5 tons per year.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Particulate emissions resulting from the roasting of low sulfur feedstocks shall be controlled with the multi-cyclones and the electrostatic precipitator. These particulate emissions shall not exceed 0.04 grains per dry standard cubic foot, after controls.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.****# 004 [25 Pa. Code §123.21]****General**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from the roaster during the roasting of low sulfur feedstocks shall be calculated as follows:

The mass of the SO<sub>2</sub> emissions is calculated based on total sulfur losses across the roaster from the low sulfur feedstock. Unless otherwise demonstrated through laboratory analyses of finished product, it is assumed that all sulfur losses are converted to SO<sub>2</sub>. Based on the design air flow for the roaster, catalyst feed rate will be limited such that the 500 ppm SO<sub>2</sub> emission is not exceeded.

**SECTION F. Alternative Operation Requirements.**

For example, the total design air flow for roasters 3, 4, and 5 is 23,350 scfm. At 500 ppm SO<sub>2</sub>, the pounds of SO<sub>2</sub> present in 23,350 scfm are equal to 124.5 pounds per hour SO<sub>2</sub>, or 62.25 pounds sulfur in the low sulfur feedstock per hour. Permittee will limit the rate of low sulfur feedstock to the roaster to a rate that is equal to or less than 62.25 pounds sulfur per hour. The sulfur limit would be prorated dependent on the number of roasters being operated on low sulfur feedstock at any point in time.

Calculations and records of materials processed shall be made available to the Department upon request.

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from all roasting of low sulfur feedstocks in roasters 1 through 6 shall be determined using a material balance calculation. Unless otherwise demonstrated through laboratory analyses of finished product, it shall be assumed that all sulfur in the incoming low sulfur feedstock is converted to SO<sub>2</sub> in the roasters.

**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with Condition 15 of Operating Permit 63-308-038, the owner/operator shall visually check the main roaster stack for opacity between 6:30 and 7:30 a.m., 11:30 am and 12:30 pm, and 4:30 and 5:30 p.m. each day that a roaster is operating, and maintain a log of observations. Cloudy, rainy conditions shall be noted in the log, the appearance of the stack, and the name and title of the person making the observation shall be noted in the log. Upon observing any visible plume whatsoever, the observer shall alert the Production Supervisor, and a Certified Visible Emission Evaluator. The Evaluator will then make a visual determination of the opacity of the emissions per 40 CFR 60, Appendix A, Method 9. A completed "Visible Emissions Observation Record" (Document ER-AQ-39, Rev. 8/79) shall be attached to the roaster logs.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Roasters being used to process low sulfur feedstocks shall be operated in accordance with the following procedure:

- A. Maintain minimum of 1000F on two of the top three hearths identified as hearths 2, 3, or 4.
- B. Record hearth temperatures manually every two hours.
- C. Visually inspect hearths 1, 2, 3, and 4. Record observations.
- D. At end of each work shift, record specific burners operating for each furnace.
- E. While stripping (cleaning) a furnace for the purpose of switching feed material and when shutting down for maintenance or any other purpose, maintain minimum temperature of 1000F for at least two hours on two of the top three hearths identified as hearths 2, 3, or 4.
- F. Upon power-up from a utility electric or natural gas outage, do not feed furnace until a temperature of 1000F is obtained on hearths 2 and 3.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Low sulfur feedstocks approved for processing in this source, under this alternate operating scenario, are the following:

**SECTION F. Alternative Operation Requirements.**

Nickel cobalt concentrate,  
Nickel filter cakes,  
Cobalt filter cakes,  
Spent & off-spec fatty nickel catalyst,  
Spent & off spec copper chromite catalyst,  
Spent petrochemical catalyst,  
Nickel/cobalt metal grindings,  
Copper carbon/copper nickel concentrates,  
Raney nickel, copper & cobalt catalysts,  
Edible & inedible metal bearing catalysts,  
Metal bearing grindings, chips, turnings, swarf or scale,  
Metal hydroxide filter cakes,  
Spent hydrogenation catalyst,  
Nickel, cobalt, carbon carbonates, pellets, fines,  
Tungsten carbide,  
Vanadium ore (vanadium concentrate).

Additional low sulfur feedstocks may be processed with written Departmental notification in accordance with 25 PA Code Section 127.14.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: "LOW SULFUR FEEDSTOCKS"

**#001 CHANGES FROM NORMAL OPERATION**

"LOW SULFUR FEEDSTOCKS" are those sulfur-containing feedstocks which, when roasted in the aggregate, result in an SO<sub>2</sub> concentration entering the breach of the main stack of less than 500 ppm SO<sub>2</sub>.

When this source is being used for the roasting of low sulfur feedstocks, exhaust from this source shall be routed to the multi-cyclones and the electrostatic precipitator only. Control of emissions by the sulfuric acid plant is not required in this alternate operating scenario, as net SO<sub>2</sub> concentrations are less than or equal to 500 ppm.

Sources included in this Alternative Operation:

ID	Name	Source Type
103	ROASTER	Process

Alternative Operation Map:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

In accordance with 25 PA Code Section 123.21, SO<sub>2</sub> emissions generated during the roasting of low sulfur feedstocks shall not exceed 500 ppm, by volume, dry basis.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Particulate emissions resulting from the roasting of low sulfur feedstocks shall be controlled with the multi-cyclones and the electrostatic precipitator. These particulate emissions shall not exceed 0.04 grains per dry standard cubic foot, after controls.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Total SO<sub>2</sub> emissions resulting from the roasting of low sulfur feedstocks in Roasters 1 through 6 shall not exceed 214.5 tons per year.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.****# 004 [25 Pa. Code §123.21]****General**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from the roaster during the roasting of low sulfur feedstocks shall be calculated as follows:

The mass of the SO<sub>2</sub> emissions is calculated based on total sulfur losses across the roaster from the low sulfur feedstock. Unless otherwise demonstrated through laboratory analyses of finished product, it is assumed that all sulfur losses are converted to SO<sub>2</sub>. Based on the design air flow for the roaster, feedstock feed rate will be limited such that the 500 ppm SO<sub>2</sub>

**SECTION F. Alternative Operation Requirements.**

emission is not exceeded.

For example, the total design air flow for roasters 3, 4, and 5 is 23,350 scfm. At 500 ppm SO<sub>2</sub>, the pounds of SO<sub>2</sub> present in 23,350 scfm are equal to 124.5 pounds per hour SO<sub>2</sub>, or 62.25 pounds sulfur in the low sulfur feedstock per hour.

Permittee will limit the rate of low sulfur feedstock to the roaster to a rate that is equal to or less than 62.25 pounds sulfur per hour. The sulfur limit would be prorated dependent on the number of roasters being operated on low sulfur feedstock at any point in time.

Calculations and records of materials processed shall be made available to the Department upon request.

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Compliance with the SO<sub>2</sub> limitation of 500 ppm from all roasting of low sulfur feedstocks in roasters 1 through 6 shall be determined using a material balance calculation. Unless otherwise demonstrated through laboratory analyses of finished product, it shall be assumed that all sulfur in the incoming low sulfur feedstock is converted to SO<sub>2</sub> in the roasters.

**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with Condition 15 of Operating Permit 63-308-038, the owner/operator shall visually check the main roaster stack for opacity between 6:30 and 7:30 a.m., 11:30 am and 12:30 pm, and 4:30 and 5:30 p.m. each day that a roaster is operating, and maintain a log of observations. Cloudy, rainy conditions shall be noted in the log, the appearance of the stack, and the name and title of the person making the observation shall be noted in the log. Upon observing any visible plume whatsoever, the observer shall alert the Production Supervisor, and a Certified Visible Emission Evaluator. The Evaluator will then make a visual determination of the opacity of the emissions per 40 CFR 60, Appendix A, Method 9. A completed "Visible Emissions Observation Record" (Document ER-AQ-39, Rev. 8/79) shall be attached to the roaster logs.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Low sulfur feedstocks approved for processing in this source, under this alternate operating scenario, are the following:

- Nickel cobalt concentrate,
- Nickel filter cakes,
- Cobalt filter cakes,
- Spent & off-spec fatty nickel catalyst,
- Spent & off spec copper chromite catalyst,
- Spent petrochemical catalyst,
- Nickel/cobalt metal grindings,
- Copper carbon/copper nickel concentrates,
- Raney nickel, copper & cobalt catalysts,
- Edible & inedible metal bearing catalysts,
- Metal bearing grindings, chips, turnings, swarf or scale,
- Metal hydroxide filter cakes,
- Spent hydrogenation catalyst,

**SECTION F. Alternative Operation Requirements.**

Nickel, cobalt, carbon carbonates, pellets, fines,  
Tungsten carbide,  
Vanadium ore (vanadium concentrate).

Additional low sulfur feedstocks may be processed with written Departmental notification in accordance with 25 PA Code Section 127.14.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Roasters being used to process low sulfur feedstocks shall be operated in accordance with the following procedure:

- A. Maintain minimum of 1000F on two of the top three hearths identified as hearths 2, 3, or 4.
- B. Record hearth temperatures manually every two hours.
- C. Visually inspect hearths 1, 2, 3, and 4. Record observations.
- D. At end of each work shift, record specific burners operating for each furnace.
- E. While stripping (cleaning) a furnace for the purpose of switching feed material and when shutting down for maintenance or any other purpose, maintain minimum temperature of 1000F for at least two hours on two of the top three hearths identified as hearths 2, 3, or 4.
- F. Upon power-up from a utility electric or natural gas outage, do not feed furnace until a temperature of 1000F is obtained on hearths 2 and 3.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***





**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.

**Alternative Operation Emission Restriction Summary**

Source Id	Source Description
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**SECTION H. Miscellaneous.**

## INSIGNIFICANT ACTIVITIES:

1. Grounds maintenance - includes activities such as cleaning, painting, welding, lawn mowing, use of hand tools, clearing of land, application of fertilizers, herbicides and pesticides.
2. Office activities - Copiers, printers, cleaning, communication activities, paper trimmers, binders, etc.
3. Air conditioning and ventilation equipment not designed to remove air pollutants, including portable space heaters, electrically heated furnaces and ovens.
4. Maintenance Activities and the equipment and supplies used in conducting these activities.
5. Maintenance shop - Lathe, drilling and boring, cutter, grinder, welder, reaming machine, milling machine, planer, sharpener, small parts cleaning, etc.
6. Mobile sources - Cars, trucks, forklifts, etc.
7. Maintenance shop for mobile sources including the small parts washer.
8. Chemical storage other than VOC material - sulfuric acid, hydrogen peroxide, boiler water treatment chemicals, lime, and liquid sulfur.
9. Emergency or auxiliary equipment - fire pump including fuel storage.
10. Waste accumulation - waste barrels, dumpsters, compactors, etc.
11. Fire protection equipment and activities involving fire protection training, first aid or emergency medical training.
12. Electrically operated equipment from which no emissions occur.
13. Lunch room equipment for employee meals.
14. Laundry operations for cleaning employee clothes and uniforms.
15. Air compressors.
16. Wastewater treatment for process water discharge which includes sulfide precipitation and lime storage silo.
17. Laboratory equipment including mixers, hoods, and other miscellaneous equipment.



\*\*\*\*\* End of Report \*\*\*\*\*

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