



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

**Synthetic Minor Source**  
**Operating Permit**

**Issued To:** McConway & Torley LLC

**ACHD Permit #:** 0275


**Facility:** McConway & Torley LLC  
109 48<sup>th</sup> Street  
Pittsburgh, PA 15201-2755

**Date of Issuance:** October 26, 2018

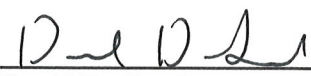
**Expiration Date:** October 25, 2023

**Renewal Date:** April 25, 2023

**Issued By:**

  
JoAnn Truchan, P.E.  
Section Chief, Engineering

**Prepared By:**

  
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Air Quality Engineer

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**AMENDMENTS:**

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

**Facility Location:** **McConway & Torley LLC**  
109 48<sup>th</sup> Street  
Pittsburgh, PA 15201-2755

**Permittee/Owner:** **McConway & Torley LLC**  
109 48<sup>th</sup> Street  
Pittsburgh, PA 15201-2755

**Responsible Official:** **Scott Mautino**  
**Title:** Vice President of Operations  
**Company:** **McConway & Torley LLC**  
**Address:** 109 48<sup>th</sup> Street  
Pittsburgh, PA 15201-2755

**Telephone Number:** (412) 682-4700  
**Fax Number:** (412) 682-4725

**Facility Contact:** **Scott Buterbaugh**  
**Title:** Director Safety and Environmental  
**Telephone Number:** (412) 682-4700 ext. 341  
**Fax Number:** (412) 682-4725  
**E-mail Address:** scott.buterbaugh@trin.net

**AGENCY ADDRESSES:**

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

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

## II. FACILITY DESCRIPTION

The McConway and Torley LLC (McConway and Torley) facility is a manufacturer of steel railcar products and mining castings. The types of processes conducted at the facility include steel melting, casting, heat-treating and finishing. The facility is a synthetic minor source of carbon monoxide (CO), as defined in §2101.20 of Article XXI. The facility is a minor source of particulate matter less than 10 microns in diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), volatile organic compounds (VOCs), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and hazardous air pollutants (HAPs) emissions, as defined in §2101.20 of Article XXI.

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

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

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
<i>P001 - Steel Making</i>	-	-	-	-	-
P001-1	Charge Handling	None	22 tons/heat	Scrap Metal	N/A
P001-2A/B	Ladle Pre-Heaters (2)	None	3.5 MMBtu/hr	Natural Gas	N/A
P001-3A/B	Stopper Rod Tables (2)	None	0.2 MMBtu/hr	Natural Gas	N/A
P001-4	Lance Table	None	0.2 MMBtu/hr	Natural Gas	N/A
P001-5	EAF #1 Furnace	Baghouse No. 11	22 tons/heat	Scrap metal, internal recycle, alloys, other additives	
P001-6	EAF #2 Furnace	Baghouse Nos. 9 & 10	22 tons/heat	Scrap metal, internal recycle, alloys, other additives	
<i>P002 - Core Making</i>	-	-	-	-	-
P002-1	Core Room Sand Handling and Silos	Bin Vent	27,000 tons/yr of sand	Sand	
P002-2	OB2 Core Room Sand Handling and Silo	Baghouse	5.76 tons/hr of sand	Sand	
P002-5	A-12 Core Machines (2)	Dakota Scrubber DI-54	5.76 tons/hr of sand	Sand, Resin	N/A
P002-6	OB2 Core Machine (2)	None	5.76 tons/hr of sand	Sand, Resin	N/A
P002-7	Alcohol Wash Operations	None	10,000 lb/yr core wash	Isopropanol	N/A
P002-8A	Existing Wisconsin Core Oven	None	1.6 MMBtu/hr 27,000 tons/yr sand	Natural Gas	N/A

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
P002-8B	IP # 9 Wisconsin Core Oven	None	1.8 MMBtu/hr 27,000 tons/yr sand	Natural Gas	N/A
P002-9	Loramendi Machines (2)	Dakota Scrubber DI-54		Sand, Resin	N/A
P002-10	Laempe Machine	Dakota Scrubber DES-68		Sand, Resin	N/A
P002-11	Core Release				
<i>P003- Sand Handling Operations</i>	-	-	-	-	-
P003-1	Sand Handling and Preparation	Baghouse No. 12	N/A	Sand	
P003-2	Casting Shakeout	Baghouse No. 12	N/A	Sand	
P003-3	Sand Reclamation	Baghouse No. 12	N/A	Sand	
P003-4	Mold Making Systems	Baghouse No. 12	N/A	Sand	
P003-4	Sand Reclamation – Cooler/Classifier	Baghouse No. 12	N/A	Sand	
P003-5	Sand Silos	Bin Vent Collector	Two 15-ton silos; 5,000 ft <sup>3</sup> Dust Silo	Sand	
P003-6	Bentonite Storage	Bin Vent Collector		Sand	
P003-7	Sand Reclamation – Vibra-Mill	Baghouse No. 12	N/A	Sand	
P003-7	Sand Reclamation – Rotary Reclaimers	Baghouse No. 12	N/A	Sand	
P003-8	Sand Lifter	None	300 SCFM	Processed Sand	N/A
P003-9	Mold Release	None			All 6 BH exhausts
<i>P004 - Casting Operations</i>	-	-	-	-	-
P004-1	Mold Pouring	None	22 tons/heat	Molten Steel	All 6 BH exhausts
P004-2	Casting Cooling	None	22 tons/heat	Molten Steel	All 6 BH exhausts

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
<i>P005 – Pre-finishing Operations</i>	-	-	-	-	-
P005-1	Gas Torch Burning	None	0.5 MMBtu/hr	Natural Gas	N/A
P005-2	Air Arc Welding Tables	Baghouse No. 6	64,750 tons/yr	Steel, Welding Rod	N/A
P005-3A/B	Shot Blast Units	Baghouse No. 2	64,750 tons/yr	Steel	
P005-4	Spinner Hanger Blast Units	Baghouse No. 2	64,750 tons/yr	Steel	
<i>P006 - Finishing Operations</i>	-	-	-	-	-
P006-1	Robotic Knuckle Machines	Dust Collector	64,750 tons/yr	Steel	
P006-2	Hand Grinding Stations	None	64,750 tons/yr	Steel	
<i>P007 - Heat Treating Operations</i>	-	-	-	-	-
P007-1	Heat Treating Furnaces	None	10 Units at 6.0 MMBtu/hr (each)	Natural Gas	N/A
<i>Miscellaneous</i>	-	-	-	-	-
B001	Space Heaters and Furnaces	None	10 MMBtu/hr (total)	Natural Gas	N/A
B002	In-Building Equipment (propane)				
B003	In-Building Equipment (fuel oil)				
D001	On-Site Diesel Fuel Tank	None	66,000 Gallons/yr	Diesel Fuel	N/A
F001	On-Site Vehicles	None	35 Vehicles/yr	N/A	N/A
F002	In-Building Vehicle Traffic				
D001	Fuel Oil Tank	None	500 Gallons	Fuel Oil	
EX001	Sand Silos (2)	Bin Vent Collectors		Sand	N/A
EX004	Closed Loop Cooling Towers	None			



**DECLARATION OF POLICY**

*Pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Accordingly, pollution prevention measures should be integrated into air pollution control programs wherever possible, and the adoption by sources of cost-effective compliance strategies, incorporating pollution prevention, is encouraged. The Department will give expedited consideration to any permit modification request based on pollution prevention principles.*

**The permittee is subject to the terms and conditions set forth below. These terms and conditions constitute provisions of Allegheny County Health Department Rules and Regulations, Article XXI Air Pollution Control. The subject equipment has been conditionally approved for operation. The equipment shall be operated in conformity with the plans, specifications, conditions, and instructions which are part of your application, and may be periodically inspected for compliance by the Department. In the event that the terms and conditions of this permit or the applicable provisions of Article XXI conflict with the application for this permit, these terms and conditions and the applicable provisions of Article XXI shall prevail. Additionally, nothing in this permit relieves the permittee from the obligation to comply with all applicable Federal, State and Local laws and regulations.**

**III. GENERAL CONDITIONS****1. Prohibition of Air Pollution (§2101.11)**

It shall be a violation of this permit to fail to comply with, or to cause or assist in the violation of, any requirement of this permit, or any order or permit issued pursuant to authority granted by Article XXI. The permittee shall not willfully, negligently, or through the failure to provide and operate necessary control equipment or to take necessary precautions, operate any source of air contaminants in such manner that emissions from such source:

- a. Exceed the amounts permitted by this permit or by any order or permit issued pursuant to Article XXI;
- b. Cause an exceedance of the ambient air quality standards established by Article XXI §2101.10; or
- c. May reasonably be anticipated to endanger the public health, safety, or welfare.

**2. Definitions (§2101.20)**

- a. Except as specifically provided in this permit, terms used retain the meaning accorded them under the applicable provisions and requirements of Article XXI or the applicable federal or state regulation. Whenever used in this permit, or in any action taken pursuant to this permit, the words and phrases shall have the meanings stated, unless the context clearly indicates otherwise.
- b. Unless specified otherwise in this permit or in the applicable regulation, the term “year” shall mean any twelve (12) consecutive months.

**3. Conditions (§2102.03.c)**

It shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02, for any person to fail to comply with any terms or conditions set forth in this permit.

**4. Certification (§2102.01)**

Any report, or compliance certification submitted under this permit shall contain written certification by a responsible official as to truth, accuracy, and completeness. This certification and any other certification required under this permit shall be signed by a responsible official of the source, and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**5. Transfers (§2102.03.e)**

This permit shall not be transferable from one person to another, except in accordance with Article XXI §2102.03.e and in cases of change-in-ownership which are documented to the satisfaction of the Department, and shall be valid only for the specific sources and equipment for which this permit was issued. The transfer of permits in the case of change-in-ownership may be made consistent with the administrative permit amendment procedure of Article XXI §2103.14.b. The required documentation and fee must be received by the Department at least 30 days before the intended transfer date.

**6. Term (§2103.12.e, §2103.13.a)**

- a. This permit shall remain valid for five (5) years from the date of issuance, or such other shorter period if required by the Clean Air Act, unless revoked. The terms and conditions of an expired permit shall automatically continue pending issuance of a new operating permit provided the permittee has submitted a timely and complete application and paid applicable fees required under Article XXI Part C, and the Department through no fault of the permittee is unable to issue or deny a new permit before the expiration of the previous permit.
- b. Expiration. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with the requirements of Article XXI Part C.

**7. Need to Halt or Reduce Activity Not a Defense (§2103.12.f.2)**

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.

**8. Property Rights (§2103.12.f.4)**

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

**9. Duty to Provide Information (§2103.12.f.5)**

- a. The permittee shall furnish to the Department in writing within a reasonable time, any information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of any records required to be kept by the permit.
- b. Upon cause shown by the permittee the records, reports, or information, or a particular portion thereof, claimed by the permittee to be confidential shall be submitted to the Department in accordance with the requirements of Article XXI, §2101.07.d.4. Information submitted to the Department under a claim of confidentiality, shall be available to the US EPA and the PADEP upon

request and without restriction. Upon request of the permittee the confidential information may be submitted to the USEPA and PADEP directly. Emission data or any portions of any draft, proposed, or issued permits shall not be considered confidential.

**10. Modification of Section 112(b) Pollutants which are VOCs or PM<sub>10</sub> (§2103.12.f.7)**

Except where precluded under the Clean Air Act or federal regulations promulgated under the Clean Air Act, if this permit limits the emissions of VOCs or PM<sub>10</sub> but does not limit the emissions of any hazardous air pollutants, the mixture of hazardous air pollutants which are VOCs or PM<sub>10</sub> can be modified so long as no permit emission limitations are violated. A log of all mixtures and changes shall be kept and reported to the Department with the next report required after each change.

**11. Right to Access (§2103.12.h.2)**

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized Department and other federal, state, county, and local government representatives to:

- a. Enter upon the permittee's premises where a permitted source is located or an emissions-related activity is conducted, or where records are or should be kept under the conditions of the permit;
- b. Have access to, copy and remove, at reasonable times, any records that must be kept under the conditions of the permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. As authorized by either Article XXI or the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

**12. Certification of Compliance (§2103.12.h.5,)**

- a. The permittee shall submit on an annual basis, certification of compliance with all terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification of compliance shall be made consistent with General Condition III.4 above and shall include the following information at a minimum:
  - 1) The identification of each term or condition of the permit that is the basis of the certification;
  - 2) The compliance status;
  - 3) Whether any noncompliance was continuous or intermittent;
  - 4) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the provisions of this permit; and
  - 5) Such other facts as the Department may require to determine the compliance status of the source.
- a. All certifications of compliance must be submitted to the Administrator as well as the Department by July 31 of each year for the time period beginning July 1 of the previous year and ending June 30 of the same year. The first report shall be due July 31, 2018. Compliance certifications may be emailed to the Administrator at [R3\\_APD\\_Permits@epa.gov](mailto:R3_APD_Permits@epa.gov) in lieu of mailing a hard copy.

**13. Record Keeping Requirements (§2103.12.j.1)**

- a. The permittee shall maintain 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 date(s) analyses were performed;
  - 3) The company or entity that performed the analyses;
  - 4) The analytical techniques or methods used;
  - 5) The results of such analyses; and
  - 6) The operating parameters existing at the time of sampling or measurement.
- b. 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 and emission statements in Article XXI §2108.01.e. 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.

**14. Retention of Records (§2103.12.j.2)**

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

**15. Reporting Requirements (§2103.12.k)**

- a. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the Responsible Official.
- b. Prompt reporting of deviations from permit requirements is required, including those attributable to upset conditions as defined in this permit and Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.
- c. All reports submitted to the Department shall comply with the certification requirements of General Condition III.4 above.
- d. Semiannual reports required by this permit shall be submitted to the Department as follows:
  - 1) One semiannual report is due by July 31 of each year for the time period beginning January 1 and ending June 30.
  - 2) One semiannual report is due by January 31 of each year for the time period beginning July 1 and ending December 31 of the previous year.
- e. Reports may be emailed to the Department at [aqreports@alleghenycounty.us](mailto:aqreports@alleghenycounty.us) in lieu of mailing a hard copy.

**16. Severability Requirement (§2103.12.l)**

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

**17. Existing Source Reactivations (§2103.13.d)**

The permittee shall not reactivate any source that has been out of operation or production for a period of one year or more unless the permittee has submitted a reactivation plan request to, and received a written reactivation plan approval from, the Department. Existing source reactivations shall meet all requirements of Article XXI §2103.13.d.

**18. Administrative Permit Amendment Procedures (§2103.14.b)**

An administrative permit amendment may be made consistent with the procedures of Article XXI §2103.14.b and §2103.24.b. Administrative permit amendments are not authorized for any amendment precluded by the Clean Air Act or the regulations there under.

**19. Revisions and Minor Permit Modification Procedures (§2103.14.c)**

Sources may apply for revisions and minor permit modifications on an expedited basis in accordance with Article XXI §2103.14.c and §2103.24.a.

**20. Significant Permit Modifications (§2103.14.d)**

Significant permit modifications shall meet all requirements of the applicable subparts of Article XXI, Part C, including those for applications, fees, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal. The approval of a significant permit modification, if the entire permit has been reopened for review, shall commence a new full five (5) year permit term. The Department shall take final action on all such permits within nine (9) months following receipt of a complete application.

**21. Duty to Comply (§2103.12.f.1)**

The permittee shall comply with all permit conditions and all other applicable requirements at all times. Any permit noncompliance constitutes a violation of the Clean Air Act, the Air Pollution Control Act, and Article XXI and is grounds for any and all enforcement action, including, but not limited to, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

**22. Renewals (§2103.13.b.)**

Renewal of this permit is subject to the same fees and procedural requirements, including those for public participation and affected State and EPA review, that apply to initial permit issuance. The application for renewal shall be submitted at least six (6) months but not more than eighteen (18) months prior to expiration of this permit. The application shall also include submission of a supplemental compliance review as required by Article XXI §2102.01.

**23. Reopenings for Cause (§2103.15, §2103.12.f.3)**

a. This permit shall be reopened and reissued under any of the following circumstances:

- 1) Additional requirements under the Clean Air Act become applicable to a major source with a remaining permit term of three (3) or more years. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the

original permit or any of its terms and conditions has been extended solely due to the failure of the Department to act on a permit renewal application in a timely fashion.

- 2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.
- 3) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
- 4) The Administrator or the Department determines that this permit must be reissued or revoked to assure compliance with the applicable requirements.

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

#### **24. Annual Operating Permit Administration Fee (§2103.40)**

In each year during the term of this permit, on or before the last day of the month in which the application for this permit was submitted, the permittee shall submit to the Department, in addition to any other applicable administration fees, an Annual Operating Permit Administration Fee in accordance with §2103.40, by check or money order payable to the “Allegheny County Air Pollution Control Fund” in the amount specified in the fee schedule applicable at that time.

#### **25. Other Requirements not Affected (§2104.08, §2105.02)**

Compliance with the requirements of this permit shall not in any manner relieve any person from the duty to fully comply with any other applicable Federal, State, or County statute, rule, regulation, or the like, including but not limited to the odor emission standards under Article XXI §2104.04, any applicable NSPSs, NESHAPs, MACTs, or Generally Achievable Control Technology (GACT) standards now or hereafter established by the EPA, and any applicable requirements of BACT or LAER as provided by Article XXI, any condition contained in any applicable Installation or Operating Permit and/or any additional or more stringent requirements contained in an order issued to such person pursuant to Article XXI Part I.

#### **26. Termination of Operation (§2108.01.a)**

In the event that operation of any source of air contaminants is permanently terminated, the person responsible for such source shall so report, in writing, to the Department within 60 days of such termination.

#### **27. Tests by the Department (§2108.02.d)**

Notwithstanding any tests conducted pursuant to Article XXI §2108.02, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.



**28. Other Rights and Remedies Preserved (§2109.02.b)**

Nothing in this permit shall be construed as impairing any right or remedy now existing or hereafter created in equity, common law or statutory law with respect to air pollution, nor shall any court be deprived of such jurisdiction for the reason that such air pollution constitutes a violation of this permit.

**29. Enforcement and Emergency Orders (§2109.03, §2109.05)**

- a. The person responsible for this source shall be subject to any and all enforcement and emergency orders issued to it by the Department in accordance with Article XXI §2109.03, §2109.04 and §2109.05.
- b. Upon request, any person aggrieved by an Enforcement Order or Emergency Order shall be granted a hearing as provided by Article XXI §2109.03.d; provided however, that an Emergency Order shall continue in full force and effect notwithstanding the pendency of any such appeal.
- c. Failure to comply with an Enforcement Order or immediately comply with an Emergency Order shall be a violation of this permit thus giving rise to the remedies provided by Article XXI §2109.02.

**30. Penalties, Fines, and Interest (§2109.07.a)**

A source that fails to pay any fee required under this permit when due shall pay a civil penalty of 50% of the fee amount, plus interest on the fee amount computed in accordance with Article XXI §2109.06.a.4 from the date the fee was required to be paid. In addition, the source may have this permit revoked for failure to pay any fee required.

**31. Appeals (§2109.10)**

In accordance with State Law and County regulations and ordinances, any person aggrieved by an order or other final action of the Department issued pursuant to Article XXI or any unsuccessful petitioner to the Administrator under Article XXI Part C, Subpart 2, shall have the right to appeal the action to the Director in accordance with the applicable County regulations and ordinances.

**32. Risk Management (§2104.08, 40 CFR Part 68)**

Should this stationary source, as defined in 40 CFR Part 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in Part 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by General Condition III.12 above.

**33. Operational Flexibility (§2103.14.a)**

- a. The owner or operator shall not make any changes at this source, including trades of increases and decreases in emissions within the permitted source, without first obtaining a permit revision for such changes, unless:
  - 1) The changes do not require an Installation Permit under §2102.04 of this Article or violate the terms of an Operating Permit or an Installation Permit;

- 2) The permit specifically allows for changes that do not cause specific emissions increases greater than a *de minimis* emission increase, and the changes do not exceed such emissions increase allowed under the permit, in accordance with General Condition III.34 below;
- 3) The changes do not violate major source applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements; and
- 4) By no later than seven (7) days prior to the date on which the implementation of the proposed change is commenced, a written notification is submitted to the Department, for attachment to the Department's copy of the relevant permit, which includes:
  - a) A brief description of the change within the permitted source;
  - b) The date on which the change will occur;
  - c) The pollutants emitted; and
  - d) Any change in emissions.

#### 34. De Minimis Emission Increases (§2103.14.e)

- a. The Department may allow, as a condition of an Operating Permit, *de minimis* emission increases from a new or existing source up to the amounts authorized in condition III.34.d below.
- b. A *de minimis* increase may not occur at a source if it either:
  - 1) Increases the emissions of a pollutant regulated under Section 112 of the Clean Air Act (42 U.S.C.A. §7412) except as authorized in conditions III.34.d.4) and 5) below;
  - 2) Subjects the source to the permit requirements of Article XXI, §§2102.05, 2102.06, or 2102.07 (relating to prevention of significant deterioration of air quality and major new source and major modification review); or
  - 3) Violates an applicable requirement of this Article, the state Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under the Air Pollution Control Act or the Clean Air Act.
- c. The permittee shall provide the Department with 7 days prior written notice of any *de minimis* emission increase. The notice shall identify and describe the pollutants that will be emitted as a result of the *de minimis* emissions increase and provide emission rates in tons/year and in terms necessary to establish compliance consistent with any applicable requirement. The Department may disapprove or condition the *de minimis* emission increase at any time.
- d. Except as provided in condition III.34.e below, the maximum *de minimis* emission rate increases, as measured in tons/year, that may be authorized in the permit during the term of the permit are:
  - 1) Four tons of carbon monoxide from an emissions unit during the term of the permit and 20 tons of carbon monoxide at the source during the term of the permit;
  - 2) One ton of NO<sub>x</sub> from an emissions unit during the term of the permit and 5 tons of NO<sub>x</sub> at the source during the term of the permit;
  - 3) One and six-tenths tons of oxides of sulfur from an emissions unit during the term of the permit and 8.0 tons of oxides of sulfur at the source during the term of the permit;
  - 4) Six-tenths of a ton of PM<sub>10</sub> from an emissions unit during the term of the permit and 3.0 tons of PM<sub>10</sub> at the source 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, the regulations thereunder, or Article XXI; and
  - 5) One ton of VOC's from an emissions unit during the term of the permit and 5 tons of VOC's at the source 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, the regulations thereunder, or Article XXI.

- e. The Department may allow, as a condition of an operating permit, installation of the minor sources exempted under §2102.04.a.5 of Article XXI.
- f. *De minimis* emission threshold levels cannot be met by offsetting emission increases with emission decreases at the same emissions unit.

**35. Circumvention (§2101.14)**

For purposes of determining compliance with the provisions of this permit and Article XXI, no credit shall be given to any person for any device or technique, including but not limited to the operation of any source with unnecessary amounts of air, the combining of separate sources except as specifically permitted by Article XXI and the Department, the use of stacks exceeding Good Engineering Practice height as defined by regulations promulgated by the US EPA at 40 CFR §§51.100 and 51.110 and Subpart I, and other dispersion techniques, which without reducing the amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise violate the provisions of this Article; except that, for purposes of determining compliance with Article §2104.04 concerning odors, credit for such devices or techniques, except for the use of a masking agent, may be given.

**36. Duty to Supplement and Correct Relevant Facts (§2103.12.d.2)**

- a. The permittee shall provide additional information as necessary to address requirements that become applicable to the source after the date it files a complete application but prior to the Department taking action on the permit application.
- b. The permittee shall provide supplementary fact or corrected information upon becoming aware that incorrect information has been submitted or relevant facts were not submitted.
- c. Except as otherwise required by this permit and Article XXI, the Clean Air Act, or the regulations thereunder, the permittee shall submit additional information as necessary to address changes occurring at the source after the date it files a complete application but prior to the Department taking action on the permit application.
- d. The applicant shall submit information requested by the Department which is reasonably necessary to evaluate the permit application.

**37. Effect (§2102.03.g.)**

- a. Except as specifically otherwise provided under Article XXI, Part C, issuance of a permit pursuant to Article XXI Part B or Part C shall not in any manner relieve any person of the duty to fully comply with the requirements of this permit, Article XXI or any other provision of law, nor shall it in any manner preclude or affect the right of the Department to initiate any enforcement action whatsoever for violations of this permit or Article XXI, whether occurring before or after the issuance of such permit. Further, except as specifically otherwise provided under Article XXI Part C the issuance of a permit shall not be a defense to any nuisance action, nor shall such permit be construed as a certificate of compliance with the requirements of this permit or Article XXI.

**38. Installation Permits (§2102.04.a.1.)**

It shall be a violation of this permit giving rise to the remedies set forth in Article XXI Part I for any person to install, modify, replace, reconstruct, or reactivate any source or air pollution control equipment which would require an installation permit or permit modification in accordance with Article XXI Part B or Part C.

#### IV. SITE LEVEL TERMS AND CONDITIONS

##### 1. Reporting of Upset Conditions (§2103.12.k.2)

The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

##### 2. Visible Emissions (§2104.01.a)

Except as provided for by Article XXI §2108.01.d pertaining to a cold start, no person shall operate, or allow to be operated, any source in such manner that the opacity of visible emissions from a flue or process fugitive emissions from such source, excluding uncombined water:

- a. Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
- b. Equal or exceed an opacity of 60% at any time.

##### 3. Odor Emissions (§2104.04) (County-only enforceable)

No person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line.

##### 4. Materials Handling (§2104.05)

The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line.

##### 5. Operation and Maintenance (§2105.03)

All air pollution control equipment required by this permit or any order under Article XXI, and all equivalent compliance techniques approved by the Department, shall be properly installed, maintained, and operated consistently with good air pollution control practice.

##### 6. Open Burning (§2105.50)

No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an Open Burning Permit to such person in accordance with Article XXI §2105.50 or where the open burning is conducted solely for the purpose of non-commercial preparation of food for human consumption, recreation, light, ornament, or provision of warmth for outside workers, and in a manner which contributes a negligible amount of air contaminants.

##### 7. Shutdown of Control Equipment (§2108.01.b)

- a. In the event any air pollution control equipment is shut down for reasons other than a breakdown, the person responsible for such equipment shall report, in writing, to the Department the intent to shut down such equipment at least 24 hours prior to the planned shutdown. Notwithstanding the submission of such report, the equipment shall not be shut down until the approval of the Department is obtained; provided, however, that no such report shall be required if the source(s)

served by such air pollution control equipment is also shut down at all times that such equipment is shut down.

- b. The Department shall act on all requested shutdowns as promptly as possible. If the Department does not take action on such requests within ten (10) calendar days of receipt of the notice, the request shall be deemed denied, and upon request, the owner or operator of the affected source shall have a right to appeal in accordance with the provisions of Article XI.
- c. The prior report required by Site Level Condition IV.7.a above shall include:
  - 1) Identification of the specific equipment to be shut down, its location and permit number (if permitted), together with an identification of the source(s) affected;
  - 2) The reasons for the shutdown;
  - 3) The expected length of time that the equipment will be out of service;
  - 4) Identification of the nature and quantity of emissions likely to occur during the shutdown;
  - 5) Measures, including extra labor and equipment, which will be taken to minimize the length of the shutdown, the amount of air contaminants emitted, or the ambient effects of the emissions;
  - 6) Measures which will be taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impracticable to shut down or curtail the affected source(s) during the shutdown; and
  - 7) Such other information as may be required by the Department.

#### **8. Breakdowns (§2108.01.c)**

- a. In the event that any air pollution control equipment, process equipment, or other source of air contaminants breaks down in such manner as to have a substantial likelihood of causing the emission of air contaminants in violation of this permit, or of causing the emission into the open air of potentially toxic or hazardous materials, the person responsible for such equipment or source shall immediately, but in no event later than sixty (60) minutes after the commencement of the breakdown, notify the Department of such breakdown and shall, as expeditiously as possible but in no event later than seven (7) days after the original notification, provide written notice to the Department.
- b. To the maximum extent possible, all oral and written notices required shall include all pertinent facts, including:
  - 1) Identification of the specific equipment which has broken down, its location and permit number (if permitted), together with an identification of all related devices, equipment, and other sources which will be affected.
  - 2) The nature and probable cause of the breakdown.
  - 3) The expected length of time that the equipment will be inoperable or that the emissions will continue.
  - 4) Identification of the specific material(s) which are being, or are likely to be emitted, together with a statement concerning its toxic qualities, including its qualities as an irritant, and its potential for causing illness, disability, or mortality.
  - 5) The estimated quantity of each material being or likely to be emitted.
  - 6) Measures, including extra labor and equipment, taken or to be taken to minimize the length of the breakdown, the amount of air contaminants emitted, or the ambient effects of the emissions, together with an implementation schedule.
  - 7) Measures being taken to shut down or curtail the affected source(s) or the reasons why it is

impossible or impractical to shut down the source(s), or any part thereof, during the breakdown.

- c. Notices required shall be updated, in writing, as needed to advise the Department of changes in the information contained therein. In addition, any changes concerning potentially toxic or hazardous emissions shall be reported immediately. All additional information requested by the Department shall be submitted as expeditiously as practicable.
- d. Unless otherwise directed by the Department, the Department shall be notified whenever the condition causing the breakdown is corrected or the equipment or other source is placed back in operation by no later than 9:00 AM on the next County business day. Within seven (7) days thereafter, written notice shall be submitted pursuant to Paragraphs a and b above.
- e. Breakdown reporting shall not apply to breakdowns of air pollution control equipment which occur during the initial startup of said equipment, provided that emissions resulting from the breakdown are of the same nature and quantity as the emissions occurring prior to startup of the air pollution control equipment.
- f. In no case shall the reporting of a breakdown prevent prosecution for any violation of this permit or Article XXI.

**9. Cold Start (§2108.01.d)**

In the event of a cold start on any fuel-burning or combustion equipment, except stationary internal combustion engines and combustion turbines used by utilities to meet peak load demands, the person responsible for such equipment shall report in writing to the Department the intent to perform such cold start at least 24 hours prior to the planned cold start. Such report shall identify the equipment and fuel(s) involved and shall include the expected time and duration of the startup. Upon written application from the person responsible for fuel-burning or combustion equipment which is routinely used to meet peak load demands and which is shown by experience not to be excessively emissive during a cold start, the Department may waive these requirements and may instead require periodic reports listing all cold starts which occurred during the report period. The Department shall make such waiver in writing, specifying such terms and conditions as are appropriate to achieve the purposes of Article XXI. Such waiver may be terminated by the Department at any time by written notice to the applicant.

**10. Monitoring of Malodorous Matter Beyond Facility Boundaries (§2104.04)**

The permittee shall take all reasonable action as may be necessary to prevent malodorous matter from becoming perceptible beyond facility boundaries. Further, the permittee shall perform such observations as may be deemed necessary along facility boundaries to insure that malodorous matter beyond the facility boundary in accordance with Article XXI §2107.13 is not perceptible and record all findings and corrective action measures taken.

**11. Emissions Inventory Statements (§2108.01.e)**

- a. Emissions inventory statements in accordance with §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.

- b. The failure to submit any report or update within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

## 12. Orders (§2108.01.f)

In addition to meeting the requirements of General Condition III.26 and Site Level Conditions IV.7 through IV.11, inclusive, the person responsible for any source shall, upon order by the Department, report to the Department such information as the Department may require in order to assess the actual and potential contribution of the source to air quality. The order shall specify a reasonable time in which to make such a report.

## 13. Violations (§2108.01.g)

The failure to submit any report or update thereof required by General Condition III.26 and Site Level Conditions IV.7 through IV.12 above, inclusive, within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

## 14. Emissions Testing (§2108.02)

- a. **Orders:** The person responsible for any source shall, upon order by the Department, conduct, or cause to be conducted, such emissions tests as specified by the Department within such reasonable time as is specified by the Department. Test results shall be submitted in writing to the Department within 20 days after completion of the tests, unless a different period is specified in the Department's order. Emissions testing shall comply with all applicable requirements of Article XXI §2108.02.e.
- b. **Tests by the Department:** Notwithstanding any tests conducted pursuant to this permit, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the permittee shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.
- c. **Testing Requirements:** No later than 45 days prior to conducting any tests required by this permit, the person responsible for the affected source shall submit for the Department's approval a written test protocol explaining the intended testing plan, including any deviations from standard testing procedures, the proposed operating conditions of the source during the test, calibration data for specific test equipment and a demonstration that the tests will be conducted under the direct supervision of persons qualified by training and experience satisfactory to the Department to conduct such tests. In addition, at least 30 days prior to conducting such tests, the person responsible shall notify the Department in writing of the time(s) and date(s) on which the tests will be conducted and shall allow Department personnel to observe such tests, record data, provide pre-weighed filters, analyze samples in a County laboratory and to take samples for independent analysis. Test results shall be comprehensively and accurately reported in the units of measurement specified by the applicable emission limitations of this permit.
- d. Test methods and procedures shall conform to the applicable reference method set forth in this permit or Article XXI Part G, or where those methods are not applicable, to an alternative sampling and testing procedure approved by the Department consistent with Article XXI §2108.02.e.2.

- e. **Violations:** The failure to perform tests as required by this permit or an order of the Department, the failure to submit test results within the time specified, the knowing submission of false information, the willful failure to submit complete results, or the refusal to allow the Department, upon presentation of a search warrant, to conduct tests, shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

**15. Abrasive Blasting (§2105.51)**

- a. Except where such blasting is a part of a process requiring an operating permit, no person shall conduct or allow to be conducted, abrasive blasting or power tool cleaning of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of Article XXI §2105.51.
- b. In addition to complying with all applicable provisions of §2105.51, no person shall conduct, or allow to be conducted, abrasive blasting of any surface unless such abrasive blasting also complies with all other applicable requirements of Article XXI unless such requirements are specifically addressed by §2105.51.

**16. Asbestos Abatement (§2105.62, §2105.63)**

In the event of removal, encasement, or encapsulation of Asbestos-Containing Material (ACM) at a facility or in the event of the demolition of any facility, the permittee shall comply with all applicable provisions of Article XXI §2105.62 and §2105.63.

**17. Protection of Stratospheric Ozone (40 CFR Part 82)**

- a. Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - 1) All containers in which a Class I or Class II substance is stored or transported, all products containing a Class I substance, and all products directly manufactured with a process that uses a Class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106;
  - 2) The placement of the required warning statement must comply with the requirements pursuant to §82.108;
  - 3) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110; and
  - 4) No person may modify, remove or interfere with the required warning statement except as described in §82.112.
- b. Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F:
  - 1) Persons opening appliances for maintenance, service, repair or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156;
  - 2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
  - 3) Persons maintaining, servicing, repairing or disposing of appliances, must be certified by an approved technician certification program pursuant to §82.161;



- 4) Persons maintaining, servicing, repairing or disposing of appliances must certify to the Administrator of the U.S. Environmental Protection Agency pursuant to §82.162;
  - 5) Persons disposing of small appliances, motor vehicle air conditioners (MVAC) and MVAC-like appliances, must comply with the record keeping requirements pursuant to §82.166;
  - 6) Owners of commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and
  - 7) Owners or operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- c. If the permittee manufactures, transforms, destroys, imports or exports a Class I or Class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A (Production and Consumption Controls).
- d. If the permittee performs a service on a motor vehicle that involves an ozone-depleting substance, refrigerant or regulated substitute substance in the MVAC, the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B (Servicing of Motor Vehicle Air Conditioners).
- e. The permittee may switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G.

**18. Volatile Organic Compound Storage Tanks (§2105.12.a)**

No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.5 psia or greater under actual storage conditions in any aboveground stationary storage tank having a capacity equal to or greater than 2,000 gallons but less than or equal to 40,000 gallons, unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig of pressure or 0.3 psig of vacuum or at the highest possible pressure and vacuum in accordance with State or local fire codes, National Fire Prevention Association guidelines, or other national consensus standard approved in writing by the Department. Petroleum liquid storage vessels that are used to store produced crude oil and condensate prior to lease custody transfer are exempt from these requirements.

**19. Fugitive Emissions (§2105.49)**

The person responsible for a source of fugitive emissions, in addition to complying with all other applicable provisions of this permit shall take all reasonable actions to prevent fugitive air contaminants from becoming airborne. Such actions may include, but are not limited to:

- a. The use of asphalt, oil, water, or suitable chemicals for dust control;
- b. The paving and maintenance of roadways, parking lots and the like;
- c. The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means;
- d. The adoption of work or other practices to minimize emissions;
- e. Enclosure of the source; and
- f. The proper hooding, venting, and collection of fugitive emissions.

**20. Episode Plans (§2106.02)**

The permittee shall upon written request of the Department, submit a source curtailment plan, consistent



with good industrial practice and safe operating procedures, designed to reduce emissions of air contaminants during air pollution episodes. Such plans shall meet the requirements of Article XXI §2106.02.

**21. New Source Performance Standards (§2105.05)**

- a. It shall be a violation of this permit giving rise to the remedies provided by §2109.02 of Article XXI for any person to operate, or allow to be operated, any source in a manner that does not comply with all requirements of any applicable NSPS now or hereafter established by the EPA, except if such person has obtained from EPA a waiver pursuant to Section 111 or Section 129 of the Clean Air Act or is otherwise lawfully temporarily relieved of the duty to comply with such requirements.
- b. Any person who operates, or allows to be operated, any source subject to any NSPS shall conduct, or cause to be conducted, such tests, measurements, monitoring and the like as is required by such standard. All notices, reports, test results and the like as are required by such standard shall be submitted to the Department in the manner and time specified by such standard. All information, data and the like which is required to be maintained by such standard shall be made available to the Department upon request for inspection and copying.

**22. Emission Limitations. (§2103.20.b.4, Installation Permit no. 0275-I014 IV.22)**

- a. Facility throughput shall not exceed 92,500 tons of steel melted for any twelve (12) consecutive months. Potential emissions to the atmosphere from the facility shall not exceed 99 tons of carbon monoxide for any twelve (12) consecutive months. (§2103.20.B.4)
- b. The total combined weight of resin (parts 1 and 2) used in the core-making process (excluding catalyst) shall not exceed 540,000 pounds during any consecutive 12-month period. The percentage of resin usage shall be less than or equal to 1.0% of the sand core weight for all cores produced at the facility calculated on a monthly average basis. (§2103.20.B.4)
- c. The following process limitations apply to the facility calculated for any twelve (12) consecutive month period: (§2103.20.B.4)
  - 1) Alcohol Use (core-making) – 10,000 lb
  - 2) Core Release VOC – 2,000 lb
  - 3) Mold Release VOC – 2,000 lb
  - 4) Propane Use (internal building use) – 202,000 lb
  - 5) Natural Gas Use – 710.4 MMCF
  - 6) Fuel Oil Use (internal building use) – 20,000 gal

**23. Record Keeping Requirements. (§2103.12.j, Installation Permit no. 0275-I014 IV.23)**

- a. The following records shall be recorded and maintained by the facility for at least five (5) years and be made available to the Department upon request:
  - 1) Daily Melting Logs, tons per heat and total heats;
  - 2) Monthly Net Good Steel (steel sent to finishing) produced;
  - 3) Daily pressure differential readings for Baghouse Nos. 2, 6, 9, 10, 11, and 12;
  - 4) Monthly Core Making Resin and Catalyst Usage;
  - 5) Annual Core Resin Usage (made and purchased) ;

- 6) Monthly Core Release Agent Used (reported as total VOC);
- 7) Monthly Mold Release Agent Used (reported as total VOC);
- 8) Monthly Alcohol Use (core making);
- 9) Monthly Natural Gas Use by Unit (ladle preheaters, heat treat ovens and all others as single entity, i.e., same emission factors);
- 10) Monthly Propane Purchased/Used Inside Foundry Building;
- 11) Monthly Fuel Purchased/Used Inside Foundry Building;
- 12) Monthly Operating Hours each dust collector;
- 13) Monthly Operating Hours exterior sand silos;
- 14) Annual Exterior Vehicle Miles Traveled (estimated);
- 15) Annual Cooling Tower Operating Hours;
- 16) Attained steel tonnage for Cleaning and Finishing operations;
- 17) Daily malodorous emissions logs; and
- 18) Incidences of non-compliance with site level conditions

**24. Reporting Requirements. (§2103.12.k, Installation Permit no. 0275-I014 IV.24)**

- a. The following shall be reported semi-annually in accordance with Condition III.15.d)
  - 1) Monthly Steel Melting;
  - 2) Monthly Core Making Resin and Catalyst Usage;
  - 3) Monthly Core Release Agent Used;
  - 4) Monthly Mold Release Agent Used;
  - 5) Monthly Alcohol Use (core making);
  - 6) Monthly Natural Gas Use by Unit (ladle preheaters, heat treat ovens and all others as single entity, i.e., same EFs);
  - 7) Monthly Propane Purchased/Used Inside Foundry Building;
  - 8) Monthly Fuel Purchased/Used Inside Foundry Building;
  - 9) Monthly Operating Hours all operations and equipment ;
  - 10) Monthly Operating Hours each dust collector;
  - 11) Monthly Operating Hours Exterior Sand Silos;
  - 12) Semi-annual summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition V.A.1., and actions taken to correct these deviations;
  - 13) Monthly malodorous emissions logs; and
  - 14) Incidences of non-compliance with site level and Source Group permit conditions
- b. The following shall be reported annually in accordance with Condition III.15.e):
  - 1) Annual Core Resin Usage (made and purchased)

**25. Work Practice Standards. (§2105.03, §2103.12.a.2.D, §2103.20.b.4, Installation Permit no. 0275-I014 IV.25)**

- a. Negative air pressure in the main foundry building shall be maintained at all times when the foundry is operating (active EAF, steel pouring, sand-handling or shakeout operations).
- b. Maintain Building Enclosure Program for Method 204 PTE verification.
- c. Operate all equipment and processes to minimize emissions.
- d. Operate, maintain, and calibrate all instrumentation and equipment in accordance with manufacturer requirements.
- e. All air pollution control equipment required by Article XXI or any permit or order under Article XXI, and all equivalent compliance techniques which have been approved by the Department pursuant to Article XXI, shall be properly installed, maintained, and operated consistent with good

air pollution control practices. (§2103.12.a.2.D, §2105.03)

**26. Facility-Wide Emissions Testing Requirements. (§2108.02, §2103.12.a.2.D, §2103.20.b.4, Installation Permit no. 0275-I014 IV.26)**

- a. The permittee shall perform emissions testing consisting of one (1) run at a minimum of six (6) hours in length for the facility-wide combined carbon monoxide, nitrogen oxides, sulfur oxides (EAF only) and volatile organic compounds on the outlets of Baghouse Nos. 2, 6, 9, 10, 11, and 12 in accordance with Site Level Condition IV.14 above. Baghouses Nos. 9, 10, and 12 shall all be tested simultaneously on one day with Baghouse Nos. 2, 6 and 11 tested simultaneously the following day. (§2103.12.a.2.D, §2103.12.h.1)
- b. Emissions testing in accordance with condition IV.26.a above shall be performed at least once every five years from the most recent (facility-wide) stack test and also within 180 days of a significant change in operations (E.G., an addition or subtraction of a pollution control device, or significant change in operation, as determined by the Department). The next facility-wide stack test to satisfy condition IV.26.a above shall be performed no later than 180 days from the issuance of this Operating Permit. (§2103.12.a.2.D)
- c. Facility-wide testing in accordance with condition IV.26.a above shall be deemed representative of normal operations by the Department and be subject to the following conditions: (§2103.12.a.2.D, §2103.12.h.1)
  - 1) The testing shall not initially begin unless a full ladle (20 or more tons) of molten steel from one of the EAFs has commenced pouring 30 minutes before the start of the testing period.
  - 2) The pouring, cooling and shakeout processes shall be active at the commencement of the test, with the production (tons of steel processed) at each process being no less than 90% of the overall steel melted for the testing period on each testing day.
  - 3) The testing shall commence at the beginning of a melt for one of the two EAFs and while the other EAF is already in the melting cycle.
  - 4) The total rate of steel processed (tons/hr) on the first day of testing shall be within 10% of the total steel processed on the second day.
  - 5) The fan motor amperes for all baghouses shall be recorded every 30 minutes during the testing periods on each day. (§2103.12.j)
  - 6) The permittee shall not use any alcohol wash during periods of facility-wide testing.
  - 7) The permittee shall not use any mold release agents containing VOC during periods of facility-wide testing.
  - 8) Normalized production (relative to the steel processed) of core-making, mold-making heat treating furnace operation shall take place during the facility-wide testing periods.

**27. Fence Line Malodorous Emissions Monitoring. (§2107.13, §2103.12.a.2.D, Installation Permit no. 0275-I014 IV.27)**

- a. The permittee shall perform daily malodorous emissions monitoring along the fence line of the facility.
  - 1) The monitoring shall consist of at least one (1) traverse along the entire fence line of the facility each operating day during normal operations.
  - 2) The permittee shall note any and all instances of malodorous emissions, promptly attempt to identify the source of such emissions, and note the corrective actions taken.

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

### **A. Process P001-1: Charge Handling**

**Process Description:** Charge Handling for EAF Nos. 1 and 2  
**Facility ID:** P001-1  
**Max. Design Rate:** 22 tons/heat  
**Capacity:** 22 tons/heat  
**Raw Materials:** Scrap metal, internal recycle, alloys, other additives  
**Control Device:** None

#### **1. Restrictions:**

- a. The permittee shall conduct the Charge Handling operations to minimize fugitive emissions in a manner such that emissions from these operations are not visible at or beyond the facility property line at any time. (§2104.05, Installation Permit no. 0275-I014 V.A.1.a)
- b. The emissions of PM-10 from all Charge Handling operations shall not exceed 0.41 pounds/ton of metal processed and 18.96 tons in any consecutive 12-month period. (§2103.12.a.2.B; §2104.02.b, Installation Permit no. 0275-I014 V.A.1.b)

#### **2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 entitled "Emissions Testing." (§2103.12.h.1, Installation Permit no. 0275-I014 V.A.2)

#### **3. Monitoring Requirements:**

None except as specified elsewhere.

#### **4. Record Keeping Requirements:**

- a. The permittee shall keep and maintain the following monthly data for the Charge Handling operations: (§2103.12.h.1, Installation Permit no. 0275-I014 V.A.4.a)
  - 1) Metal and other materials charged (tons/day) and number of heats/day;
  - 2) Records of visible emission notations as required by Condition V.A.1.a above;
  - 3) Records of all dust control measures taken and dates of occurrence.
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1, Installation Permit no. 0275-I014 V.A.4.b)
- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.A.4.c)

#### **5. Reporting Requirements:**

- a. The permittee shall report monthly summaries of the records required by Condition V.A.4.a.1) above to the Department in accordance with General Condition III.15 above. (Installation Permit no. 0275-I014 V.A.5.a)
- b. The permittee shall report non-compliance information required to be recorded by V.A.4.b above to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, Installation Permit no. 0275-I014 V.A.5.b)
- c. Reporting instances of non-compliance in accordance with condition V.A.5.b above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.A.5.c)

## 6. Work Practice Standards:

- a. The permittee shall comply with the requirements of the metallic scrap management program and the site-specific plan for mercury switches below: (§63.10885)
  - 1) *Metallic scrap management program.* For each segregated metallic scrap storage area, bin or pile, the permittee shall comply with the materials acquisition requirements in Conditions V.A.6.a.1)a) and V.A.6.a.1)b) below. The permittee shall keep a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of scrap providers. The permittee may have certain scrap subject to Condition V.A.6.a.1)a) below and other scrap subject to Condition V.A.6.a.1)b) below at the facility provided the metallic scrap remains segregated until charge make-up. (§63.10885(a))
    - a) *Restricted metallic scrap.* The permittee shall prepare and operate at all times according to written material specifications for the purchase and use of only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, chlorinated plastics, or free liquids. For the purpose of this condition, “free liquids” is defined as material that fails the paint filter test by EPA Method 9095B, “Paint Filter Liquids Test” (revision 2), November 2004 (incorporated by reference—see §63.14). The requirements for no free liquids do not apply if the permittee can demonstrate that the free liquid is water that resulted from scrap exposure to rain. (§63.10885(a)(1))
    - b) *General iron and steel scrap.* The permittee shall prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications shall include at minimum the specifications for metallic scrap materials charged to a scrap preheater or metal melting furnace to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids. (§63.10885(a)(2))
  - 2) *Mercury requirements.* For scrap containing motor vehicle scrap, the permittee shall procure the scrap pursuant to one of the compliance options in Conditions V.A.6.a.2)a), V.A.6.a.2)b), or V.A.6.a.2)c) below for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, the permittee shall procure the scrap pursuant to the requirements

in Condition V.A.6.a.2)d) below for each scrap provider, contract, or shipment. The permittee may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision. (§63.10885(b))

- a) *Site-specific plan for mercury switches.* The permittee shall comply with the requirements below: (§63.10885(b)(1))
- i) The permittee shall include a requirement in the scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.
  - ii) The permittee shall prepare and operate according to a plan demonstrating how the facility will implement the scrap specification in Condition V.A.6.a.2)a)i) above for removal of mercury switches. The permittee shall submit the plan to the Administrator or the Department for approval. The permittee shall operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the Administrator or the Department within 60 days following disapproval of a plan. The permittee may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the Administrator or the Department. The Administrator or the Department may change the approval status of the plan upon 90-days written notice based upon the semiannual report or other information. The plan shall include:
    - (1) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from the scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan shall include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or the Department, the permittee shall provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;
    - (2) Provisions for obtaining assurance from scrap providers motor vehicle scrap provided to the facility meet the scrap specification;
    - (3) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and
    - (4) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in Condition V.A.6.a.2)a)ii)(3) above.
  - iii) The permittee shall require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the facility during the previous year and the basis for the estimate. The Administrator or the Department may request documentation or additional information at any time.
  - iv) The permittee shall establish a goal for each scrap supplier to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under Condition V.A.6.a.2)a) above may require only the removal of convenience light switch mechanisms, the Administrator or the Department will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as



sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.

- v) For each scrap provider, the permittee shall submit semiannual progress reports to the Administrator or the Department that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in Condition V.A.6.a.2)a)ii)(1) above. This information can be submitted in aggregate form and does not have to be submitted for each shipment. The Administrator or the Department may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.
- b) *Option for approved mercury programs.* The permittee shall certify in their notification of compliance status that the permittee participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator or the Department based on the criteria in Conditions V.A.6.a.2)b)i) through V.A.6.a.2)b)iii) below. If purchase motor vehicle scrap from a broker, The permittee shall certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator or the Department based on the criteria in Conditions V.A.6.a.2)b)i) through V.A.6.a.2)b)iii) below. The National Mercury Switch Recovery Program and the State of Maine Mercury Switch Removal Program are EPA-approved programs under Condition V.A.6.a.2)b) unless and until the Administrator or the Department disapproves the program (in part or in whole) under Condition V.A.6.a.2)b)iii) below: (§63.10885(b)(2))
  - i) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;
  - ii) The program has a goal to remove at least 80 percent of mercury switches from motor vehicle scrap the scrap provider processes. Although a program approved under Condition V.A.6.a.2)b) above may require only the removal of convenience light switch mechanisms, the Administrator or the Department will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and
  - iii) The program sponsor agrees to submit progress reports to the Administrator or the Department no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports shall be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator or the Department may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.
  - iv) The permittee shall develop and maintain onsite a plan demonstrating the manner through which the facility is participating in the EPA-approved program.
    - (1) The plan shall include facility-specific implementation elements, corporate-wide

policies, and/or efforts coordinated by a trade association as appropriate for each facility.

- (2) The permittee shall provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or the Department or delegated authority, the permittee shall provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.
  - (3) The permittee shall conduct periodic inspections or other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.
- c) *Option for specialty metal scrap.* The permittee shall certify in their notification of compliance status and maintain records of documentation that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches. (§63.10885(b)(3))
  - d) *Scrap that does not contain motor vehicle scrap.* For scrap not subject to the requirements in Conditions V.A.6.a.2)a) through V.A.6.a.2)c) above, the permittee shall certify in their notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap. (§63.10885(b)(4))



**B. Process: P001-5 Electric Arc Furnace #1**

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

**1. Restrictions:**

- a. The permittee shall not discharge to the atmosphere from EAF #1 emissions which: [§63.10895(c)]
  - 1) Exit from EAF #1 Baghouse and contain particulate matter in excess of 0.8 lbs per ton of metal charged; [§63.10895(c)(1)] or
  - 2) Exit from EAF #1 Baghouse and contain hazardous air pollutants in excess of 0.06 lbs per ton of metal charged; [§63.10895(c)(1)]
- b. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent; [§63.10895(e)]
- c. The permittee shall not discharge to the atmosphere fugitive emissions solely from EAF#1 operations that exhibit opacity equal to or greater than 10 percent; [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.B.1.c]
- d. The permittee shall not discharge to the atmosphere emissions from a EAF #1 Baghouse that contain particulate matter in excess of 0.0012 gr/dscf; and [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.B.1.d]
- e. The permittee shall not discharge to the atmosphere emissions from the EAF #1 baghouse stack that equal or exceed 10 percent opacity. [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.B.1.e]
- f. The permittee shall at no time conduct EAF #1 process operations unless the EAF #1 Baghouse and capture system is operating and is properly maintained and operated according to the following conditions: [§2103.12.a.2.D, §63.10895(b) , Installation Permit no. 0275-I014 V.B.1.f]
  - 1) The EAF shall be equipped with a canopy hood and a side-draft hood for collection of process emissions that capture 99.5 percent of emissions, and such hoods shall be properly maintained and operated at all times with all emissions ducted to the EAF #1 Baghouse. [§2103.12.a.2.D]
  - 2) The permittee shall operate a capture and collection system for EAF #1 that meets accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists. [§63.10895(b)]
- g. The combined production of steel from both EAFs shall not exceed 92,500 tons of steel in any consecutive twelve-month period. [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.B.1.g]

- h. Emissions from the EAF #1 Baghouse shall not exceed the mass emissions limitations in Table V-B-1 below: [§2103.12.a.2.D, §2104.03.c, §63.10895c(2), Installation Permit no. 0275-I014 V.B.1.h]

TABLE V-B-1 – EAF #1 Baghouse Mass Emission Limitations

POLLUTANT	LBS/HR	TPY <sup>1</sup>	lb/ton of metal charged	Facility TPY / lb/ton metal charged <sup>4</sup>
Filterable Particulate Matter, PM	0.98	4.28	<b>0.120</b>	
Total PM <sub>10</sub> <sup>2</sup>	3.98	14.60	<b>0.30</b>	
Total PM <sub>2.5</sub> <sup>2</sup>	3.98	14.60	<b>0.30</b>	
NO <sub>x</sub> <sup>3</sup>	9.35	27.67		<b>45.38 / 0.98</b>
SO <sub>x</sub>	5.73	25.10		
CO <sup>3</sup>	13.93	41.25		96.25 / 2.08
VOC <sup>3</sup>	0.79	2.34		7.94 / 0.17
Metal HAPs	0.046	0.16	0.0035	
Chromium	0.004	0.014	0.0003	
Manganese	0.030	0.10	0.0022	

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

2 Total PM<sub>10</sub> and PM<sub>2.5</sub> include condensable emissions.

3 lb/hr limits are based on 6 consecutive hours of stack testing.

4 Facility TPY and lb/ton of metal charged are based on the sum of emissions from all facility-wide baghouses exiting the building.

- i. Each furfuryl alcohol warm box mold or core making line shall use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system. [§63.10886]
- j. The permittee shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in Conditions V.B.1.a, and V.B.1.b above. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan shall contain the following information: [§63.10896, Installation Permit no. 0275-I014 V.B.1.j]
- 1) General facility and contact information; [§63.10896)(a)(1)]
  - 2) Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart; [§63.10896)(a)(2)]
  - 3) Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions; [§63.10896)(a)(3)]
  - 4) Identity and estimated quantity of the replacement parts that will be maintained in inventory; and [§63.10896)(a)(4)]
  - 5) The permittee may use any other O&M, preventative maintenance, or similar plan which

addresses the requirements in Conditions V.B.1.j.1) through V.B.1.j.4) above to demonstrate compliance with the requirements for an O&M plan. [§63.10896(b)]

## 2. Testing Requirements:

- a. The permittee shall perform emission tests once every five years for exhaust gas PM, PM-10, and PM-2.5 concentrations (gr/dscf) and equivalent mass emission rates (lb/hr), Chromium and Manganese emission rates (lb/hr) at the EAF #1 Baghouse to demonstrate compliance with Conditions V.B.1.a, V.B.1.d, and V.B.1.h above. [§2108.02, Installation Permit no. 0275-I014 V.B.2.a]
- b. The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in Conditions V.B.1.a.1) and V.B.1.a.2) for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions. [§63.10898(b)]
- c. Emissions testing required in Conditions V.B.2.a, V.B.2.b above, and IV.26 above shall be performed in accordance with the following test methods unless an alternate test method is approved by the Department in writing: [§2108.02, Table 1 to Subpart ZZZZZ of CFR Part 63, Installation Permit no. 0275-I014 V.B.2.c]
  - 1) Select sampling port locations and the number of traverse points in each stack or duct using EPA Method 1 or 1A [40 CFR part 60, appendix A];
  - 2) Determine volumetric flow rate of the stack gas using Method 2, 2A, 2C, 2D, 2F, or 2G [40 CFR part 60, appendix A];
  - 3) Determine dry molecular weight of the stack gas using EPA Method 3, 3A, or 3B [40 CFR part 60, appendix A];
  - 4) Measure moisture content of the stack gas using EPA Method 4 [40 CFR part 60, A];
  - 5) Determine PM concentration using EPA Method 5, 5B, 5D, 5F, or 5I, as applicable;
  - 6) Determine metal HAP concentration using EPA Method 29 [40 CFR part 60, appendix A].
  - 7) Sampling sites shall be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere;
    - a) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch;
    - b) For Method 29, only the measured concentration of the listed metal HAP analytes that are present at concentrations exceeding one-half the quantification limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantification limit of the analytical method, the concentration of those analytes is assumed to be zero for the purposes of calculating the total metal HAP;
    - c) A minimum of three valid test runs are needed to comprise a PM or total metal HAP performance test;
    - d) For electric arc furnaces, sample PM or total metal HAP only during normal melt production conditions, which may include, but are not limited to the following operations: Charging, melting, alloying, refining, slagging, and tapping;
    - e) Determine and record the total combined weight of tons of metal charged during the duration of each test run. The permittee shall compute the process-weighted mass emissions of PM according to Equation 1 of §63.10898(d) for an individual furnace or

- Equation 2 of §63.10898(e) for the group of all metal melting furnaces at the foundry.
- 8) For fugitive emissions from buildings or structures housing any steel foundry emissions sources subject to opacity limit in §63.10895(e):
    - a) Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A-4) and 40 CFR 63.6(h)(5);
      - i) The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation;
      - ii) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests.
    - b) As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A-7):
      - i) The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility shall conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A-4);
      - ii) The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation;
      - iii) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests.
  - 9) Emissions of nitrogen oxides shall be determined in accordance with Site Level Condition IV.14 above and EPA Method 7E;
  - 10) Testing for volatile organic compounds shall be performed using Method 25A. Correction to remove methane, ethane and acetone to calculate VOC can be made through a method approved by the Department; (§2103.12.a.2.D, §2103.12.h.1)
  - 11) Emissions of carbon monoxide shall be determined in accordance with Site Level Condition IV.14 above and EPA Method 10A;
  - 12) Emissions of sulfur oxides shall be determined in accordance with Site Level Condition IV.14 above and EPA Method 6c;
  - 13) Emissions of PM<sub>10</sub> (filterable and condensable) and PM<sub>2.5</sub> (filterable and condensable) shall be determined in accordance with Site Level Condition IV.14 above and with EPA Methods 201A and 202.
  - 14) Back-half and condensable portions of the PM collected in V.B.2.c.5) above shall be collected and reported to the Department during testing. As noted in V.B.2.c.7) above, only the front-half (probe rinse and filter) shall be used for purposes of meeting PM requirements in Conditions V.B.1.a.1) above and V.B.1.h above.
- d. The emissions testing shall be performed over three heats where a heat is the time from the beginning of the charge to the end of the tap. [§2108.02, §2102.04.e, Installation Permit no. 0275-I014 V.B.2.d]
  - e. During any performance test required under §63.10898, this permit and for any report thereof or

to determine compliance with Condition V.B.1.a.1) above, the permittee shall monitor the following information for all heats covered by the test: [§2108.02, §2102.04.e, Installation Permit no. 0275-I014 V.B.2.e]

- 1) Charge weights and materials, and tap weights and materials;
  - 2) The weight of steel produced (each heat);
  - 3) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing;
  - 4) Differential pressure drop across each compartment (once every 15 minutes minimum);
  - 5) The amperage for each fan motor (once every 30 minutes minimum);
  - 6) Control device operation log including damper positions and damper position changes; and
  - 7) Continuous opacity monitor or Method 9 data.
- f. The testing required by Condition V.B.2.a and V.B.2.b above shall be repeated at least once every five years from the date of the most recent test. [§2108.02.a, §2103.12.h.1, Installation Permit no. 0275-I014 V.B.2.f]
- g. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 above and Article XXI §2108.02. [§2103.12.h.1, Installation Permit no. 0275-I014 V.B.2.g]

### **3. Monitoring Requirements:**

- a. The permittee shall install, operate, and maintain a bag leak detection system for each EAF baghouse according to the requirements as follows: [§63.10897(d), §2103.12.a.2.D, Installation Permit no. 0275-I014 V.B.3.a]
- 1) Each bag leak detection system shall meet the requirements of Conditions V.B.3.a.1)a) through V.B.3.a.1)g) below: [§63.10897(d)(1)]
    - a) The system shall be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.00044 grains per actual cubic foot) or less. [§63.10897(d)(1)(i)]
    - b) The bag leak detection system sensor shall provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using a strip chart recorder, data logger, or other means. [§63.10897(d)(1)(ii)]
    - c) The system shall be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm shall be located such that it can be heard by the appropriate plant personnel. [§63.10897(d)(1)(iii)]
    - d) The initial adjustment of the system shall, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, the permittee also shall adjust the alarm delay time. [§63.10897(d)(1)(iv)]
    - e) Following the initial adjustment, the permittee shall not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time. Except, once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the



- monitoring plan required by V.B.3.a.1)b) above. [§63.10897(d)(1)(v)]
- f) For negative pressure baghouses, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor shall be installed downstream of the baghouse and upstream of any wet scrubber. [§63.10897(d)(1)(vi)]
  - g) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [§63.10897(d)(1)(vii)]
- 2) The permittee shall prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in the O&M plan. The permittee shall operate and maintain each bag leak detection system according to the plan at all times. Each plan shall address all of the items identified in Conditions V.B.3.a.2) through V.B.3.a.2)f) below: [§63.10897(d)(2)]
- a) Installation of the bag leak detection system; [§63.10897(d)(2)(i)]
  - b) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established; [§63.10897(d)(2)(ii)]
  - c) Operation of the bag leak detection system including quality assurance procedures; [§63.10897(d)(2)(iii)]
  - d) Maintenance of the bag leak detection system including a routine maintenance schedule and spare parts inventory list; [§63.10897(d)(2)(iv)]
  - e) How the bag leak detection system output will be recorded and stored; and [§63.10897(d)(2)(v)]
  - f) Procedures for determining what corrective actions are necessary in the event of a bag leak detection alarm as required in §63.10897(d)(2). [§63.10897(d)(2)(vi)]
- 3) In the event that a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. The permittee shall record the date and time of each valid alarm, the time the permittee initiated corrective action, the correction action taken, and the date on which corrective action was completed. Corrective actions may include, but are not limited to: [§63.10897(d)(3)]
- a) Inspecting the bag house for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions; [§63.10897(d)(3)(i)]
  - b) Sealing off defective bags or filter media; [§63.10897(d)(3)(ii)]
  - c) Replacing defective bags or filter media or otherwise repairing the control device; [§63.10897(d)(3)(iii)]
  - d) Sealing off a defective baghouse department; [§63.10897(d)(3)(iv)]
  - e) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; [§63.10897(d)(3)(v)]
  - f) Shutting down the process producing the particulate emissions. [§63.10897(d)(3)(vi)]
- b. The permittee shall make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency. [§63.10897(e) , Installation Permit no.

0275-I014 V.B.3.b]

- c. The permittee shall install, operate, and maintain each CPMS or other measurement device according to the facility's O&M plan. The permittee shall record all information needed to document conformance with these requirements. [§63.10897(f) , Installation Permit no. 0275-I014 V.B.3.c]
- d. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed. [§63.10897(g) , Installation Permit no. 0275-I014 V.B.3.d]
- e. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of the EAF #1 Baghouse during operation of the EAF. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly operated, calibrated, and maintained according to manufacturer's specifications. [§2102.04.e, §2103.12.h.1, Installation Permit no. 0275-I014 V.B.3.e]

#### **4. Record Keeping Requirements:**

- a. As required by §63.10(b)(1), the permittee shall maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.10899(a), Installation Permit no. 0275-I014 V.B.4.a]
- b. In addition to the records required by 40 CFR 63.10, the permittee shall keep records of the following information: [§63.10899(b), Installation Permit no. 0275-I014 V.B.4.b]
  - 1) The permittee shall keep records of written materials specifications according to Condition V.A.6.a above and records that demonstrate compliance with the requirements for restricted metallic scrap in Condition V.A.6.a.1)a) above and/or for the use of general scrap in Condition V.A.6.a.1)b) above and for mercury in Conditions V.A.6.a.2)a)i), V.A.6.a.2)a)ii), and V.A.6.a.2)a)iii) above, as applicable. The permittee shall keep records documenting compliance with Condition V.A.6.a.2)a)iv) above for scrap that does not contain motor vehicle scrap. [§63.10899(b)(1)]
  - 2) If the permittee is subject to the requirements for a site-specific plan for mercury under V.A.6.a.2)a) above, the permittee shall: (§63.10899(b)(2))
    - a) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and [§63.10899(b)(2)(i)]
    - b) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted

facilities. The semiannual reports shall include a certification that the permittee has conducted periodic inspections or taken other means of corroboration as required under V.A.6.a.2)a)ii)(3) above. The permittee shall identify which option in V.A.6.a.2)b) above applies to each scrap provider, contract, or shipment. The permittee shall include this information in the semiannual compliance reports required under V.B.5.b below. [§63.10899(b)(2)(ii)]

- 3) If the permittee is subject to the option for approved mercury programs under V.A.6.a.2) above, the permittee shall maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If the scrap provider is a broker, the permittee shall maintain records identifying each of the broker's scrap suppliers and documenting the scrap supplier's participation in an approved mercury switch removal program. [§63.10899(b)(3)]
  - 4) The permittee shall keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by Condition V.B.1.i above. These records shall be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet. [§63.10899(b)(4)]
  - 5) The permittee shall keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records shall be copies of purchasing records, Material Safety Data Sheets, or other documentation that provide information on the binder or coating materials used; [§63.10899(b)(5)]
  - 6) The permittee shall keep records of monthly metal melt production for each calendar year; [§63.10899(b)(6)]
  - 7) The permittee shall keep a copy of the operation and maintenance plan as required by V.B.1.j above and records that demonstrate compliance with plan requirements; [§63.10899(b)(7)]
  - 8) The permittee shall keep records for bag leak detection systems as follows: [§63.10899(b)(9)]
    - a) Records of the bag leak detection system output;
    - b) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and
    - c) The date and time of all bag leak detection system alarms, and for each valid alarm, the time the permittee initiated corrective action, the corrective action taken, and the date on which corrective action was completed.
  - 9) The permittee shall keep records of capture system inspections and repairs as required by Condition V.B.3.b above; [§63.10899(b)(10)]
  - 10) The permittee must keep records demonstrating conformance with the specifications for the operation of CPMS as required by V.B.3.c above; [§63.10899(b)(11)]
  - 11) The permittee shall keep records of corrective action(s) for exceedances and excursions as required by Condition V.B.3.d above; [§63.10899(b)(12)]
  - 12) The permittee shall record the results of each inspection and maintenance required by Condition V.B.3.b above for PM control devices in a logbook (written or electronic format). The permittee shall keep the logbook onsite and make the logbook available to the Administrator or the Department upon request. The permittee shall keep records of the date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters. [§63.10899(b)(13)]
- c. The permittee shall maintain records to demonstrate compliance with the requirements of §2105.06. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 are met. Data and information required to determine compliance shall be



recorded and maintained by the permittee and shall include, but not be limited to the following: [§2103.12.j.1, Installation Permit no. 0275-I014 V.B.4.c]

- 1) Number of heats and production for the EAF (daily, monthly, 12-month rolling total);
- 2) Time and duration of each furnace heat (charge to tap) (per charge/tap, monthly average);
- 3) Differential pressure drop across each compartment of the EAF #1 Baghouse (weekly); and
- 4) Stack test protocols and reports.

- d. The permittee shall maintain a copy of the manufacturer's specifications for the EAF #1 Baghouse and records of control system inspections and performance evaluations and all records of calibration checks, adjustments, and maintenance performed on all equipment that is subject to this permit. [§2103.12.j.1, Installation Permit no. 0275-I014 V.B.4.d]
- e. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2103.12.h.1, Installation Permit no. 0275-I014 V.B.4.e]
- f. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12.j.2, Installation Permit no. 0275-I014 V.B.4.f]

## **5. Reporting Requirements:**

- a. The permittee shall report the following information semiannually to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: [§2103.12.k.1, Installation Permit no. 0275-I014 V.B.5.a]
  - 1) Monthly and 12-month data required to be recorded by Condition V.B.4.a, V.B.4.b and V.B.4.c above; and
  - 2) Non-compliance information required to be recorded by Condition V.B.4.e above.
- b. The permittee shall submit semiannual compliance reports to the Administrator and the Department according to the requirements in §63.10(e). The reports shall include, at a minimum, the following information as applicable: [§63.10899(c), Installation Permit no. 0275-I014 V.B.5.b]
  - 1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
  - 2) 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); and
  - 3) Summary information on any deviation from the pollution prevention management practices in Conditions V.A.6.a above and V.B.1.i above and the operation and maintenance requirements of Condition V.B.1.j above and the corrective action taken.
- c. When the permittee is required to demonstrate compliance with the standard under Condition V.B.2.a and V.B.2.b above, the permittee shall obtain approval from the Department and the Administrator of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used shall be postmarked at least 30 days prior to the performance test. Notification procedures of §2108.02 shall also apply. [§2108.02.e, Installation Permit no. 0275-I014 V.B.5.c]

- d. Reporting instances of non-compliance in accordance with Condition V.B.5.a.2) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. [§2103.12.k.1, Installation Permit no. 0275-I014 V.B.5.d]

**6. Work Practice Standard:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. [§2105.03, Installation Permit no. 0275-I014 V.B.6]

**C. Process P001-6 : Electric Arc Furnace #2**

<b>Process Description:</b>	<b>Electric Arc Furnace</b>
<b>Facility ID:</b>	<b>Electric Arc Melting Furnace # 2, BH 9 &amp; BH 10</b>
<b>Max. Design Rate/Units:</b>	<b>13.33 tons/hr; 116,800 tons/yr of steel melted</b>
<b>Synthetic Minor Limit:</b>	<b>92,500 tons/yr of steel melted</b>
<b>Raw Materials:</b>	<b>Scrap steel, various melting additives, slagging agents</b>
<b>Control Device:</b>	<b>Canopy Hood, Side Draft Hood, 2 Baghouses (Nos. 9 &amp; 10) - Beltech Engineering Dust Collectors; Pulse-Jet, 1 compartment each, negative pressure with 1 stack each.</b>

**1. Restrictions:**

- a. The permittee shall not discharge to the atmosphere from EAF #2 emissions which: [§63.10895(c)]
  - 1) Exit from EAF #2 Baghouse and contain particulate matter in excess of 0.1 lbs per ton of metal charged; [(§63.10895(c)(2))] or
  - 2) Exit from EAF #2 Baghouse and contain hazardous air pollutants in excess of 0.008 lbs per ton of metal charged; [§63.10895(c)(2)]
- b. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent; [§63.10895(e)]
- c. The permittee shall not discharge to the atmosphere fugitive emissions solely from EAF #2 operations that exhibit opacity equal to or greater than 10 percent; [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.C.1.c]
- d. The permittee shall not discharge to the atmosphere emissions from a EAF #2 Baghouse that contain particulate matter in excess of 0.0012 gr/dscf; and [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.C.1.d]
- e. The permittee shall not discharge to the atmosphere emissions from the EAF #2 baghouse stack that equal or exceed 10 percent opacity. [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.C.1.e]
- f. The permittee shall at no time conduct EAF #2 process operations unless the EAF #2 Baghouses are both operating and are properly maintained and operated according to the following conditions: [§2103.12.a.2.D, Installation Permit no. 0275-I014 V.C.1.f]
  - 1) The EAF shall be equipped with a canopy hood and a side-draft hood for collection of process emissions that capture 99.5 percent of emissions, and such hoods shall be properly maintained and operated at all times with all emissions ducted to the EAF #2 Baghouse. [§2103.12.a.2.D]
  - 2) The permittee shall operate a capture and collection system for EAF #2 that meets accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists. [§63.10895(b)]
- g. The combined production of steel from both EAFs shall not exceed 92,500 tons of steel in any consecutive twelve-month period and the production in any one heat shall not exceed 22 tons.

[§2103.12.a.2.D, Installation Permit no. 0275-I014 V.C.1.g]

- h. Emissions from the combined EAF #2 baghouses shall not exceed the emissions limitations in Table V-C-1 below: [§2103.12.a.2.D, §2104.03.c, §63.10895c(2), Installation Permit no. 0275-I014 V.C.1.h]

**TABLE V-C-1 – EAF #2 Emission Limitations**

<b>POLLUTANT</b>	<b>LBS/HR</b>	<b>TPY<sup>1</sup></b>	<b>lb/ton of metal charged</b>	<b>Facility TPY / lb/ton metal charged<sup>4</sup></b>
Filterable Particulate Matter, PM	0.93	4.05	<b>0.1</b>	
Total PM <sub>10</sub> <sup>2</sup>	3.98	14.60	<b>0.30</b>	
Total PM <sub>2.5</sub> <sup>2</sup>	3.98	14.60	<b>0.30</b>	
NO <sub>x</sub> <sup>3</sup>	7.52	22.27		<b>45.38 / 0.98</b>
SO <sub>x</sub>	5.73	25.10		
CO <sup>3</sup>	9.00	26.64		96.25 / 2.08
VOC <sup>3</sup>	0.10	0.30		7.94 / 0.17
Metal HAPs	0.046	0.16	0.0035	
Chromium	0.004	0.014	0.0003	
Manganese	0.030	0.10	0.0022	

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

2 Total PM<sub>10</sub> and PM<sub>2.5</sub> include condensable emissions.

3 lb/hr limits are based on 6 consecutive hours of stack testing.

4 Facility TPY and lb/ton of metal charged are based on the sum of emissions from all facility-wide baghouses exiting the building.

- i. Each furfuryl alcohol warm box mold or core making line shall use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system. (§63.10886)
- j. The permittee shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in Condition V.C.1.a above. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan shall contain the following information: [§63.10896, Installation Permit no. 0275-I014 V.C.1.j]
- 1) General facility and contact information; (§63.10896)(a)(1))
  - 2) Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart; (§63.10896)(a)(2))
  - 3) Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag

leak detection systems, the O&M plan shall include the site-specific monitoring plan required in Condition V.C.3.d.2) below. (§63.10896)(a)(3))

- 4) Identity and estimated quantity of the replacement parts that will be maintained in inventory; and (§63.10896)(a)(4))
- 5) For a new affected source, procedures for operating and maintaining a CPMS in accordance with manufacturer's specifications. (§63.10896)(a)(5))
- 6) The permittee may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in Conditions V.C.1.k.1) through V.C.1.k.5) above to demonstrate compliance with the requirements for an O&M plan. (§63.10896)(b))

## 2. Testing Requirements:

- a. The permittee shall perform emission tests once every five years for exhaust gas PM, PM-10, and PM-2.5 concentrations (gr/dscf) and equivalent mass emission rates (lb/hr), Chromium and Manganese emission rates (lb/hr) at the EAF #2 Baghouses to demonstrate compliance with Conditions V.C.1.a and V.C.1.h above. [§2108.02, Installation Permit no. 0275-I014 V.C.2.a]
- b. The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in Conditions V.C.1.a.1) and V.C.1.a.2) above for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions. [§63.10898(b)]
- c. Emissions testing required in Conditions V.C.2.a, V.C.2.b above, and IV.26 above shall be performed in accordance with the following test methods unless an alternate test method is approved by the Department in writing: [§2108.02, Table 1 to Subpart ZZZZZ of CFR Part 63, Installation Permit no. 0275-I014 V.C.2.c]
  - 1) Select sampling port locations and the number of traverse points in each stack or duct using EPA Method 1 or 1A (40 CFR part 60, appendix A);
  - 2) Determine volumetric flow rate of the stack gas using Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A);
  - 3) Determine dry molecular weight of the stack gas using EPA Method 3, 3A, or 3B (40 CFR part 60, appendix A);
  - 4) Measure moisture content of the stack gas using EPA Method 4 (40 CFR part 60, A);
  - 5) Determine PM concentration using EPA Method 5, 5B, 5D, 5F, or 5I, as applicable;
  - 6) Determine metal HAP concentration using EPA Method 29 (40 CFR part 60, appendix A).
  - 7) Sampling sites shall be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere;
    - a) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch;
    - b) For Method 29, only the measured concentration of the listed metal HAP analytes that are present at concentrations exceeding one-half the quantification limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantification limit of the analytical method, the concentration of those analytes is assumed to be zero for the purposes of calculating the total metal HAP;
    - c) A minimum of three valid test runs are needed to comprise a PM or total metal HAP performance test;

- d) For electric arc furnaces, sample PM or total metal HAP only during normal melt production conditions, which may include, but are not limited to the following operations: Charging, melting, alloying, refining, slagging, and tapping;
- e) Determine and record the total combined weight of tons of metal charged during the duration of each test run. The permittee shall compute the process-weighted mass emissions of PM according to Equation 1 of §63.10898(d) for an individual furnace or Equation 2 of §63.10898(e) for the group of all metal melting furnaces at the foundry.
- 8) For fugitive emissions from buildings or structures housing any steel foundry emissions sources subject to opacity limit in §63.10895(e):
  - a) Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A–4) and 40 CFR 63.6(h)(5);
    - i) The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation;
    - ii) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests.
  - b) As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A–7):
    - i) The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility shall conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A–4);
    - ii) The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation;
    - iii) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests.
- 9) Emissions of nitrogen oxides shall be determined in accordance with Site Level Condition IV.14 above and EPA Method 7E;
- 10) Testing for volatile organic compounds shall be performed using Method 25A. Correction to remove methane, ethane and acetone to calculate VOC can be made through a method approved by the Department; (§2103.12.a.2.D, §2103.12.h.1)
- 11) Emissions of carbon monoxide shall be determined in accordance with Site Level Condition IV.14 above and EPA Method 10A;
- 12) Emissions of sulfur oxides shall be determined in accordance with Site Level Condition IV.14 above and EPA Method 6c;
- 13) Emissions of PM<sub>10</sub> (filterable and condensable) and PM<sub>2.5</sub> (filterable and condensable) shall be determined in accordance with Site Level Condition IV.14 above and with EPA Methods 5 or 7 and 202, or a test method approved by the Department in writing.
- 14) Back-half and condensable portions of the PM collected in V.C.2.c.5) above shall be collected and reported to the Department during testing. As noted in V.C.2.c.7)a) above, only the front-half (probe rinse and filter) shall be used for purposes of meeting PM requirements in Conditions V.C.1.a.1) above and V.C.1.h above.



- d. The emissions testing shall be performed over three heats where a heat is the time from the beginning of the charge to the end of the tap. [§2108.02, §2102.04.e, Installation Permit no. 0275-I014 V.C.2.d]
- e. During any performance test required under §63.10898, and this permit and for any report thereof or to determine compliance with Condition V.C.1.a above, the permittee shall monitor the following information for all heats covered by the test: [§2108.02, §2102.04.e, Installation Permit no. 0275-I014 V.C.2.e]
  - 1) Charge weights and materials, and tap weights and materials;
  - 2) The weight of steel produced (each heat);
  - 3) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing;
  - 4) Differential pressure drop across each compartment (once every 15 minutes minimum);
  - 5) The amperage for each fan motor (once every 30 minutes minimum);
  - 6) Control device operation log including damper positions and damper position changes; and
  - 7) Continuous opacity monitor or Method 9 data.
- f. The testing required by Condition V.C.2.a and V.C.2.b above shall be repeated at least once every five years from the date of the most recent test. [§2108.02.a, §2103.12.h.1, Installation Permit no. 0275-I014 V.C.2.f]
- g. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 above and Article XXI §2108.02. [§2103.12.h.1, Installation Permit no. 0275-I014 V.C.2.g]

### **3. Monitoring Requirements:**

- a. The permittee shall conduct an initial inspection of each PM control device for a metal melting furnace at an existing affected source. The permittee shall conduct each initial inspection no later than 60 days after the applicable compliance date for each installed control device which has been operated within 60 days of the compliance date. For an installed control device which has not operated within 60 days of the compliance date, the permittee shall conduct an initial inspection prior to startup of the control device. Following the initial inspections, the permittee shall perform periodic inspections and maintenance of each PM control device for a metal melting furnace at an existing affected source. (§63.10897(a))
- b. For the initial inspection of each baghouse, the permittee shall visually inspect the system ductwork and baghouse units for leaks. The permittee shall also inspect the inside of each baghouse for structural integrity and fabric filter condition. Following the initial inspections, the permittee shall do the following: (§63.10897(a)(1))
  - 1) The permittee shall conduct monthly visual inspections of the system ductwork for leaks.
  - 2) The permittee shall conduct inspections of the interior of the baghouses for structural integrity and to determine the condition of the fabric filter every 6 months.
- c. The permittee shall record the results of each initial and periodic inspection and any maintenance action in the logbook required in §63.10899(b)(13). (§63.10897(a))



- d. The permittee shall install, operate, and maintain a bag leak detection system for each EAF baghouse. The permittee shall install, operate, and maintain each bag leak detection system according to the requirements as follows: [§63.10897(d), Installation Permit no. 0275-I014 V.C.3.d]
- 1) Each bag leak detection system shall meet the requirements of Conditions V.C.3.d.1)a) through V.C.3.d.1)g) below: (§63.10897(d)(1))
    - a) The system shall be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.00044 grains per actual cubic foot) or less. (§63.10897(d)(1)(i))
    - b) The bag leak detection system sensor shall provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using a strip chart recorder, data logger, or other means. (§63.10897(d)(1)(ii))
    - c) The system shall be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm shall be located such that it can be heard by the appropriate plant personnel. (§63.10897(d)(1)(iii))
    - d) The initial adjustment of the system shall, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, the permittee also shall adjust the alarm delay time. (§63.10897(d)(1)(iv))
    - e) Following the initial adjustment, the permittee shall not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time. Except, once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the monitoring plan required by V.C.3.d.1)b) above. (§63.10897(d)(1)(v))
    - f) For negative pressure baghouses, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor shall be installed downstream of the baghouse and upstream of any wet scrubber. (§63.10897(d)(1)(vi))
    - g) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. (§63.10897(d)(1)(vii))
  - 2) The permittee shall prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in the O&M plan. The permittee shall operate and maintain each bag leak detection system according to the plan at all times. Each plan shall address all of the items identified in Conditions V.C.3.d.2)a) through V.C.3.d.2)f) below: (§63.10897(d)(2))
    - a) Installation of the bag leak detection system; (§63.10897(d)(2)(i))
    - b) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established; (§63.10897(d)(2)(ii))
    - c) Operation of the bag leak detection system including quality assurance procedures; (§63.10897(d)(2)(iii))
    - d) Maintenance of the bag leak detection system including a routine maintenance schedule and spare parts inventory list; (§63.10897(d)(2)(iv))
    - e) How the bag leak detection system output will be recorded and stored; and (§63.10897(d)(2)(v))

- f) Procedures for determining what corrective actions are necessary in the event of a bag leak detection alarm as required in §63.10897(d)(2). (§63.10897(d)(2)(vi))
- 3) In the event that a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. The permittee shall record the date and time of each valid alarm, the time the permittee initiated corrective action, the correction action taken, and the date on which corrective action was completed. Corrective actions may include, but are not limited to: (§63.10897(d)(3))
  - a) Inspecting the bag house for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions; (§63.10897(d)(3)(i))
  - b) Sealing off defective bags or filter media; (§63.10897(d)(3)(ii))
  - c) Replacing defective bags or filter media or otherwise repairing the control device; (§63.10897(d)(3)(iii))
  - d) Sealing off a defective baghouse department; (§63.10897(d)(3)(iv))
  - e) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; (§63.10897(d)(3)(v))
  - f) Shutting down the process producing the particulate emissions. (§63.10897(d)(3)(vi))
- e. The permittee shall make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency. (§63.10897(e)), Installation Permit no. 0275-I014 V.C.3.e)
- f. The permittee shall install, operate, and maintain each CPMS or other measurement device according to the facility's O&M plan. The permittee shall record all information needed to document conformance with these requirements. (§63.10897(f), Installation Permit no. 0275-I014 V.C.3.f)
- g. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed. (§63.10897(g), Installation Permit no. 0275-I014 V.C.3.g)
- h. The permittee shall conduct an inspection on the EAF #2 Baghouses once per week to demonstrate compliance with Condition V.C.1.f above. (§2103.12.a.2.D, §2102.04.e, §2103.12.h.1, Installation Permit no. 0275-I014 V.C.3.h)
- i. The permittee shall check and record the fan motor amperes for the emission control system, i.e.,

- EAF #2 Baghouses, on a once-per-shift basis. (§2102.04.e, §2103.12.i, Installation Permit no. 0275-I014 V.C.3.i)
- j. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of the EAF #2 Baghouses during operation of the EAF. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly operated, calibrated, and maintained according to manufacturer's specifications. (§2102.04.e, §2103.12.h.1, Installation Permit no. 0275-I014 V.C.3.j)
- k. No later than 60 days after achieving full production or 120 days after startup of the EAF #2, whichever is earlier, the permittee shall install, operate and maintain gauges for the EAF #2 baghouses with differential pressure ranges and accuracies that are approved in writing by the Department (§2103.12.a.2.D; §2105.03, Installation Permit no. 0275-I014 V.C.3.k)

#### **4. Record Keeping Requirements:**

- a. As required by §63.10(b)(1), the permittee shall maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.10899(a), Installation Permit no. 0275-I014 V.C.4.a)
- b. In addition to the records required by 40 CFR 63.10, the permittee shall keep records of the following information: (§63.10899(b), Installation Permit no. 0275-I014 V.C.4.b)
- 1) The permittee shall keep records of written materials specifications according to Condition V.A.6.a above and records that demonstrate compliance with the requirements for restricted metallic scrap in Condition V.A.6.a.1)a) above and/or for the use of general scrap in Condition V.A.6.a.1)b) above and for mercury in Conditions V.A.6.a.2)a)i), V.A.6.a.2)a)ii), and V.A.6.a.2)a)iii) above, as applicable. The permittee shall keep records documenting compliance with Condition V.A.6.a.2)a)iv) above for scrap that does not contain motor vehicle scrap. (§63.10899(b)(1))
  - 2) If the permittee is subject to the requirements for a site-specific plan for mercury under V.A.6.a.2)a) above, the permittee shall: (§63.10899(b)(2))
    - a) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and (§63.10899(b)(2)(i))
    - b) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports shall include a certification that the permittee has conducted periodic inspections or taken other means of corroboration as required under V.A.6.a.2)a)ii)(3) above. The permittee shall identify which option in V.A.6.a.2)b) above applies to each scrap provider, contract, or shipment. The permittee shall include this information in the semiannual compliance reports required under V.C.5.b below. (§63.10899(b)(2)(ii))
  - 3) If the permittee is subject to the option for approved mercury programs under V.A.6.a.2) above, the permittee shall maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If the scrap provider

- is a broker, the permittee shall maintain records identifying each of the broker's scrap suppliers and documenting the scrap supplier's participation in an approved mercury switch removal program; (§63.10899(b)(3))
- 4) The permittee shall keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by Condition V.C.1.i above. These records shall be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet; (§63.10899(b)(4))
  - 5) The permittee shall keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records shall be copies of purchasing records, Material Safety Data Sheets, or other documentation that provide information on the binder or coating materials used; (§63.10899(b)(5))
  - 6) The permittee shall keep records of monthly metal melt production for each calendar year; (§63.10899(b)(6))
  - 7) The permittee shall keep a copy of the operation and maintenance plan as required by V.C.1.j above and records that demonstrate compliance with plan requirements; (§63.10899(b)(7))
  - 8) The permittee shall keep records for bag leak detection systems as follows: (§63.10899(b)(9))
    - a) Records of the bag leak detection system output;
    - b) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings;
    - c) The date and time of all bag leak detection system alarms, and for each valid alarm, the time the permittee initiated corrective action, the corrective action taken, and the date on which corrective action was completed.
  - 9) The permittee shall keep records of capture system inspections and repairs as required by Condition V.C.3.e above; (§63.10899(b)(10))
  - 10) The permittee must keep records demonstrating conformance with the specifications for the operation of CPMS as required by V.C.3.f above; (§63.10899(b)(11))
  - 11) The permittee shall keep records of corrective action(s) for exceedances and excursions as required by Condition V.C.3.g above; (§63.10899(b)(12))
  - 12) The permittee shall record the results of each inspection and maintenance required by Condition V.C.3.a above for PM control devices in a logbook (written or electronic format). The permittee shall keep the logbook onsite and make the logbook available to the Administrator or the Department upon request. The permittee shall keep records of the date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters. (§63.10899(b)(13))
- c. The permittee shall maintain records to demonstrate compliance with the requirements of §2105.06. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 are met. Data and information required to determine compliance shall be recorded and maintained by the permittee and shall include, but not be limited to the following (§2103.12.j.1, Installation Permit no. 0275-I014 V.C.4.c):
- 1) Number of heats and production for the EAF (daily, monthly, 12-month rolling total);
  - 2) Time and duration of each furnace heat (charge to tap) (per charge/tap, monthly average);
  - 3) Differential pressure drop across each compartment of the EAF #2 Baghouses (daily); and
  - 4) Stack test protocols and reports.
- d. The permittee shall maintain a copy of the manufacturer's specifications for the EAF #2 Baghouses

- and records of control system inspections and performance evaluations and all records of calibration checks, adjustments, and maintenance performed on all equipment that is subject to this permit. (§2103.12.j.1, Installation Permit no. 0275-I014 V.C.4.d)
- e. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1, Installation Permit no. 0275-I014 V.C.4.e)
  - f. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.C.4.f)

## **5. Reporting Requirements:**

- a. The permittee shall report the following information semiannually to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, Installation Permit no. 0275-I014 V.C.5.a)
  - 1) Monthly and 12-month data required to be reported by Condition V.C.4.a above; and
  - 2) Non-compliance information required to be recorded by Condition V.C.4.e above.
- b. The permittee shall submit semiannual compliance reports to the Administrator and the Department according to the requirements in §63.10(e). The reports shall include, at a minimum, the following information as applicable: (§63.10899(c), Installation Permit no. 0275-I014 V.C.5.b)
  - 1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
  - 2) 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); and
  - 3) Summary information on any deviation from the pollution prevention management practices in Conditions V.A.6.a above and V.C.1.i above and the operation and maintenance requirements of Condition V.C.1.j above and the corrective action taken.
- c. The permittee shall submit written notification to the Administrator and the Department of the initial classification of the new or existing affected source as a large iron and steel facility as required in §63.10880(f) and (g), as applicable, and for any subsequent reclassification as required in §63.10881(d) or (e), as applicable. (§63.10899(d), Installation Permit no. 0275-I014 V.C.5.c)
- d. When the permittee is required to demonstrate compliance with the standard under Condition V.C.2.a and V.C.2.b above, the permittee shall obtain approval from the Department and the Administrator of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used shall be postmarked at least 30 days prior to the performance test. Notification procedures of §2108.02 shall also apply. (§2108.02.e, Installation Permit no. 0275-I014 V.C.5.d)
- e. Reporting instances of non-compliance in accordance with Condition V.C.5.a.2) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.C.5.e)

**6. Work Practice Standard:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.C.6)



**D. Process P002-1, P002-2: Core Room Sand Handling and Silos**

**Process Description:** Two (2) 200 ton Sand Storage Silos and six (6) 25 ton Sand Surge Silos  
**Facility ID:** Sand Storage  
**Max. Design Rate/Units:** 27,000 tons/yr of sand  
**Raw Materials:** Core sand  
**Control Device:** Eight (8) Bin Vent Dust Collectors

The permittee is also subject to the following conditions:

**1. Restrictions:**

- a. The permittee shall conduct Sand Storage operations in a manner such that emissions from these operations are not visible at or beyond the facility property line at any time. (§2104.05, Installation Permit no. 0275-I014 V.D.1.a)
- b. The Sand Storage, and Sand Surge silos shall be equipped with an exhaust vent dust collector that shall not cause to be discharged into the atmosphere from the silo bin vents, particulate matter emissions in excess of 0.02 grains/dscf at any time. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.D.1.b)
- c. The Sand Storage and Sand Surge silos dust collectors shall be operated at all times as specified in the manufacturer's or vendor's specifications. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.D.1.c)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.D.2)

**3. Monitoring Requirements:**

The Sand Storage silos shall be visibly inspected weekly to determine compliance with Conditions V.D.1.a, V.D.1.b, and V.D.1.c above. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.D.3)

**4. Record Keeping Requirements:**

- a. The permittee shall keep and maintain the following data for the Sand Storage and Sand Surge silos: (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.D.4.a)
  - 1) Sand throughput (tons/day, tons/year) of core-making equipment, as per Condition V.E.4.c below; and
  - 2) Records of operation, maintenance, inspection, calibration and/or replacement of control equipment.
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.D.4.b)



- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.D.4.c)

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.D.5.a)
  - 1) Annual core-making sand throughput data required to be recorded by condition V.E.4.c below; and
  - 2) Non-compliance information required to be recorded by V.D.4.b above.
- b. Reporting instances of non-compliance in accordance with condition V.D.5.a.2) above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.D.5.b)

**6. Work Practice Standard:**

- a. If any visible emissions from the Sand Storage and Sand Surge silos are observed to extend beyond the facility property line, the permittee shall take reasonable response steps to eliminate the emissions. Failure to take corrective steps shall be considered a deviation from this permit. (§2105.03, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.D.6.a)
- b. The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. [§2105.03, Installation Permit no. 0275-I014 V.D.6.b]

**E. Process P002-3 – P002-6: Core-Making Systems**

**Process Description:** Two (2) Loramendi, One (1) Lampe and  
**Facility ID:** Two (2) A-12 Core-Making Units; Two (2) OB2 Core Machines  
**Max. Design Rate/Units:** 5.76 tons/hr of sand cores (each)  
**Raw Materials:** Core sand; resin binder system; Core Wash (isopropanol) or equivalent alcohol  
**Control Device:** Dekota DI-54 packed-bed, gas scrubber (A-12 and Loramendi Units); Dekota DES-68 packed bed, gas scrubber (Lampe). Both vent internally to building.

**1. Restrictions:**

- a. The permittee shall at no time, operate or allow to be operated, the Artisan A-12 and Lampe/Loramendi core-making systems unless the VOC and HAP emissions from the process are controlled by a packed-bed scrubber system that is operated according to the following conditions (§2101.05.a.2, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.E.1.a):
  - 1) Scrubbing liquid solution shall consist of sulfuric acid;
  - 2) The scrubbing liquid pH shall not exceed 4.5 at any time;
  - 3) Minimum scrubbing liquid flow rate shall be 29 (DES-68) and 100 (DI-54) gallons per minute (gpm); and,
  - 4) The pressure drop range across the scrubber shall be 2.0 to 10.0 inches of water column.
- b. The maximum production rate of sand cores from the core-making process shall not exceed 5.76 tons per hour (each unit), 23.0 tons per hour (total) and 27,000 tons (total) during any consecutive 12-month period. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.E.1.b)
- c. The maximum amount of sand throughput for each of the A-12, Lampe, and Loramendi core making units shall not exceed 10,000 tons/year. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.E.1.c)
- d. Core Wash use in the core-making units shall not exceed 7,358 pounds and 0.273 lb/ton of core sand during any consecutive 12-month period. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.E.1.d)
- e. The total combined weight of resin (parts 1 and 2) used in the core-making process shall not exceed 540,000 pounds during any consecutive 12-month period. The percentage of resin usage shall be less than or equal to 1.0% of the sand core weight for all cores produced at the facility calculated on a monthly average basis. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.E.1.e)
- f. The permittee shall obtain prior approval from the Department for any substitutions to the resin binder system or core wash usage. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.E.1.f)
- g. No person shall operate, or allow to be operated, the new A-12, Lampe and Loramendi core-making units in such manner that the opacity of visible emissions from a flue or process fugitive emissions from the source, excluding uncombined water (§2104.01.a, Installation Permit no. 0275-I014 V.E.1.g):

- 1) Equal or exceed an opacity of 10% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
  - 2) Equal or exceed an opacity of 30% at any time.
- h. No person shall operate, or allow to be operated, the new A-12, Lampe, and Loramendi core-making units in such manner that emissions of malodorous matter from the source are perceptible beyond the property line. (§2104.04, Installation Permit no. 0275-I014 V.E.1.h)
- i. Core-making emissions shall not exceed the following at any time (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.E.1.i):

**Table V.E – Facility Core-Making Units Emission Limitations (total)**

POLLUTANT	LBS/HR	TPY <sup>1</sup>
Volatile Organic Compounds <sup>2</sup>	1.13	3.32

<sup>1</sup> A year is defined as any 12 consecutive months.

<sup>2</sup> Does not include emissions from core wash.

- j. Each furfuryl alcohol warm box mold or core making line shall use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system. [§63.10886]

## **2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.E.2)

## **3. Monitoring Requirements:**

- a. The scrubber shall be provided with instrumentation that shall continuously monitor both the pressure drop across the scrubber, the flow rate of the scrubbing liquid, and the scrubbing liquid pH. Each monitoring device shall be certified by the manufacturer to be accurate to within ½" w.c.. for the pressure drop and 5% for the flow rate and pH of the scrubber liquid. (§2101.05.a.2, §2103.12.a.2.D; §2103.12.i, Installation Permit no. 0275-I014 V.E.3.a)
- b. The following parameters shall be monitored and recorded daily and each time a change is made to each scrubber parameter: (§2101.05.a.2, §2103.12.a.2.D; §2103.12.i, Installation Permit no. 0275-I014 V.E.3.b)
- 1) The pressure drop across the scrubber;
  - 2) The scrubbing liquid flow rate; and
  - 3) A visual inspection in accordance with the manufacturer's recommended maintenance for proper operation and to ensure that there is no evidence of chemical attack on the structural integrity.

## **4. Record Keeping Requirements:**

- a. The permittee shall maintain the monitoring records for the scrubber as required by Condition

V.E.3.b above. (§2103.12.a.2.D; §2103.12.j, Installation Permit no. 0275-I014 V.E.4.a)

- b. The permittee shall retain records of all data sufficient to demonstrate compliance with this permit, including, but not limited to, the total amount of resin binders, catalysts, and alcohols used on a monthly basis. (§2103.12.a.2.D; §2103.12.j, Installation Permit no. 0275-I014 V.E.4.b)
- c. The permittee shall record the hours of operation and total weight (in tons) of cores produced on a daily basis in order to demonstrate compliance with Condition V.E.1.b above. (§2103.12.a.2.D; §2103.12.j, Installation Permit no. 0275-I014 V.E.4.c)
- d. As required by §63.10(b)(1), the permittee shall maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.10899(a), §2103.12.j, Installation Permit no. 0275-I014 V.E.4.d]
- e. The permittee shall maintain on-site a copy of the manufacturer's specifications for the Dekota Scrubber and records of control system inspections and performance evaluations and all records of calibration checks, adjustments, and maintenance performed on all equipment that is subject to this permit. [§2103.12.j.1, Installation Permit no. 0275-I014 V.E.4.e]
- f. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2103.12.h.1, Installation Permit no. 0275-I014 V.E.4.f]
- g. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12.j.2, Installation Permit no. 0275-I014 V.E.4.g]

## **5. Reporting Requirements:**

- a. Monthly sand usage, core production and mold production shall be reported to the Department on a semi-annual basis in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k, Installation Permit no. 0275-I014 V.E.5.a)
- b. The permittee shall report a summary of the scrubber parameters (scrubbing liquid solution, pH, scrubber liquid flow rate and pressure drop) indicating if any readings fall outside the range as specified in Condition V.E.1.a above, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k, Installation Permit no. 0275-I014 V.E.5.b)
- c. The permittee shall report the following information semiannually to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: [§2103.12.k.1, Installation Permit no. 0275-I014 V.E.5.c]
  - 1) Monthly and 12-month summaries of:
    - a) Maximum and minimum pressure drops across the scrubber;
    - b) The maximum and minimum scrubbing liquid flow rate;
    - c) Weight of resin binders, catalysts, and alcohols used; and
    - d) The hours of operation and total weight (in tons) of cores produced.
  - 2) Non-compliance information required to be recorded by Condition V.E.4.f above..

- d. The permittee shall submit semiannual compliance reports to the Department according to the requirements in §63.10(e). The reports shall include, at a minimum, the following information as applicable: [§63.10899(c) , Installation Permit no. 0275-I014 V.E.5.d]
  - 1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken; [§63.10899(c)(1)]
  - 2) 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); and [§63.10899(c)(2)]
  - 3) Summary information on any deviation from the pollution prevention management practices in Conditions V.E.1.j above and the corrective action taken. [§63.10899(c)(3)]
- e. Reporting instances of non-compliance in accordance with Condition V.E.5.c.2) above , does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. [§2103.12.k.1, Installation Permit no. 0275-I014 V.E.5.e]

**6. Work Practice Standard:**

- a. The packed-bed scrubber system shall be properly installed, maintained, and operated consistent with good air pollution control practices and manufacturer's instructions. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.E.6.a)
- b. The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. [§2105.03, Installation Permit no. 0275-I014 V.E.6.b]

**F. Process P002-8: Wisconsin Core Ovens**

**Process Description:** Wisconsin Core Ovens (2)  
**Facility ID:** P002-8A & P002-8B  
**Capacity:** 1.6 MMBtu/hr; 1.8 MMBtu/hr  
**Fuel Type:** Natural Gas  
**Control Device(s):** None

**1. Restrictions:**

- a. Only natural gas shall be combusted in the core ovens. (§2103.12.a.2.D; §2104.03.a.2.A, Installation Permit no. 0275-I014 V.F.1.a)
- b. Natural gas combustions particulate emissions from the core ovens shall not exceed 0.008 lb/MMBtu of actual heat input at any time while combusting natural gas. (§2104.02.a.1, Installation Permit no. 0275-I014 V.F.1.b)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.F.2)

**3. Monitoring Requirements:**

The permittee shall install and maintain the necessary meter(s) to determine and to record the hours of operation of the Wisconsin Core Ovens. (§2102.04.e, Installation Permit no. 0275-I014 V.F.3)

**4. Record Keeping Requirements:**

- a. The permittee shall keep and maintain the following data required by Condition V.F.3 for the natural gas-fired core oven to demonstrate compliance with all applicable requirements of this permit: (§2103.12.j; §2103.20.b.4, Installation Permit no. 0275-I014 V.F.4.a)
  - 1) Records of hours of operation;
  - 2) Records of the name of natural gas supplier; and
  - 3) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.
- b. The permittee shall record all instances of non-compliance with Conditions V.F.1.a and V.F.1.b above and corrective actions taken shall be recorded upon occurrence. (§2103.12.j, Installation Permit no. 0275-I014 V.F.4.b)

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.F.5.a)



- 1) Rolling 12-month total hours of operation; and
  - 2) Non-compliance information required to be recorded by V.F.4.b above.
- b. Reporting instances of non-compliance in accordance with condition V.F.5.a.2) above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.F.5.b)

**6. Work Practice Standards:**

- a. If any visible emissions from Wisconsin Core Ovens are observed to extend beyond the facility property line, the permittee shall take reasonable response steps to eliminate the emissions. Failure to take corrective steps shall be considered a deviation from this permit. (§2105.03, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.F.6.a)
- b. The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. [§2105.03, Installation Permit no. 0275-I014 V.F.6.b]

**G. Process P003-6: Bentonite Storage**

**Process Description:** One (1) 200 ton Bentonite Storage Silo and Pneumatic Conveying System  
**Facility ID:** Bentonite Storage and Conveying  
**Max. Design Rate/Units:** 15,000 tons/yr of bentonite  
**Raw Materials:** Bentonite  
**Control Device:** One (1) Bin Vent Dust Collectors

The permittee is also subject to the following conditions:

**1. Restrictions:**

- a. The permittee shall conduct Bentonite Storage and Pneumatic Conveying operations in a manner such that emissions from these operations are not visible at or beyond the facility property line at any time. (§2104.05, Installation Permit no. 0275-I014 V.G.1.a)
- b. The Bentonite Storage silo shall be equipped with an exhaust vent dust collector that shall not cause to be discharged into the atmosphere from the silo bin vents, particulate matter emissions in excess of 0.02 grains/dscf at any time. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.G.1.b)
- c. The Bentonite Storage silo dust collector shall be operated at all times as specified in the manufacturer's or vendor's specifications. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.G.1.c)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.G.2)

**3. Monitoring Requirements:**

The Bentonite Storage silo shall be visibly inspected weekly to determine compliance with conditions V.G.1.a, V.G.1.b and V.G.1.c above. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.G.3)

**4. Record Keeping Requirements:**

- a. The permittee shall keep and maintain the following data for the Bentonite Storage silo: (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.G.4.a)
  - 1) Bentonite throughput (tons/year); and
  - 2) Records of operation, maintenance, inspection, calibration and/or replacement of control equipment.
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.a.2.D, Installation

Permit no. 0275-I014 V.G.4.b)

- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.G.4.c)

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.G.5.a)
  - 1) Annual bentonite throughput data required to be recorded by condition V.G.4.a.1) above; and
  - 2) Non-compliance information required to be recorded by V.G.4.b above.
- b. Reporting instances of non-compliance in accordance with condition V.G.5.a.2) above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, §2103.12.a.2.D, Installation Permit no. 0275-I014 V.G.5.b)

**6. Work Practice Standards:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. [§2105.03, Installation Permit no. 0275-I014 V.G.6]

**H. Process P003-1, P003-5: Mold Making System, Sand Handling/Preparation/Reclamation, Shakeout and Intermediate Sand Storage Silos**

**Process Description:** Mold Making System, Sand Handling/Preparation/Reclamation, Shakeout, Shot Blast Unit No. 1, and Intermediate Sand Storage Silos  
**Facility ID:** P003-1, P003-4  
**Max. Design Rate/Units:** 105 tons/hour sand  
**Raw Materials:** Mold sand  
**Control Device:** Baghouse #12

The permittee is also subject to the following conditions:

**1. Restrictions:**

- a. The maximum amount of sand used in the Mold Making, Shakeout, Sand Reclaim (cooler/classifier), and the Sand Handling and Preparation System(s) processes shall (each) not exceed 105 tons per hour calculated on a daily average basis using mass of sand in molds and for the period of operation (excluding intermittent shutdowns of less than 20 minutes) for mold making. The maximum amount of mold sand processed by the newly added Sand Reclaim Vibra-Mill and Rotary Reclaimer shall not exceed 10 tons per hour. (§2103.12.a.2.D, §2102.04.e., §2104.01.a, Installation Permit no. 0275-I014 V.H.1.a)
- b. The permittee shall not operate, or allow to be operated, the Mold Making, Shakeout, Sand Reclaim (cooler/classifier), and the Sand Handling and Preparation System(s) in such manner that the opacity of visible emissions from a flue or process fugitive emissions from excluding uncombined water equal or exceed an opacity of 10% at any time. (§2103.12.a.2.D, §2102.04.b.6, Installation Permit no. 0275-I014 V.H.1.b)
- c. The emissions from the Mold Making, Shakeout, Sand Reclaim (cooler/classifier), Intermediate Sand Storage Silos, Shot Blast Unit No. 1 and the Sand Handling and Preparation System(s) shall be directed to Baghouse No. 12 at all times during operation of either pieces of equipment. In addition, the permittee shall operate Baghouse No. 12 in a manner demonstrating negative air pressure in the main foundry building during any Melting, Pouring, Cooling, Shakeout, or Sand Reclaim operations. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.H.1.c)
- d. The concentration of filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6, Installation Permit no. 0275-I014 V.H.1.d)
- e. Emissions shall not exceed the following at any time (§2102.04.b.6, §2103.20.b.4, Installation Permit no. 0275-I014 V.H.1.e):

**Table V.H.1 –Baghouse #12 Emissions Limitations**

<b>POLLUTANT</b>	<b>LBS/HR<sup>3,4</sup></b>	<b>TPY<sup>1,3,4</sup></b>	<b>Facility TPY<sup>5</sup></b>
PM <sup>2</sup>	4.98	17.94	
PM <sub>10</sub> <sup>2</sup>	4.98	17.94	
PM <sub>2.5</sub> <sup>2</sup>	4.98	17.94	

<b>POLLUTANT</b>	<b>LBS/HR<sup>3,4</sup></b>	<b>TPY<sup>1,3,4</sup></b>	<b>Facility TPY<sup>5</sup></b>
PM Condensable	1.59	5.72	
Nitrogen Oxides	0.233	0.68	45.38 TPY / 0.98 lb/ton
VOC	2.27	6.49	7.94 TPY / 0.17 lb/ton
CO	11.79	33.75	96.25 TPY / 2.08 lb/ton
Benzene	0.23	0.66	1.21
Phenol	0.56	2.46	2.46
Naphthalene	0.39	1.72	1.72

<sup>1</sup> A year is defined as any 12 consecutive months.

<sup>2</sup> Includes condensable emissions.

<sup>3</sup> Emission totals are from all sources connected to Baghouse #12, as listed in Table II-1

<sup>4</sup> Based on 6-hour average stack test results.

<sup>5</sup> Facility totals based on stack test results from all facility-wide baghouses exiting the building.

- f. Baghouse No. 12 shall be properly operated and maintained according to good engineering practices and in accordance with manufacturer's specifications at all times. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.H.1.f)
- g. The differential pressure drop ranges across Baghouse #12 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after achieving full production or 120 days after startup. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.H.1.g)

## **2. Testing Requirements:**

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each at least two (2) hours in length for particulate matter (filterable and condensable particulate), PM<sub>10</sub> and PM<sub>2.5</sub> on the outlet of Baghouse #12 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.H.2.a)
- b. Testing for particulate matter, PM<sub>10</sub> and PM<sub>2.5</sub> shall be performed using USEPA Methods 1 through 5, Method 201/201A and Method 202. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.H.2.b)
- c. Compliance of the filterable particulate matter emissions standards of Condition V.H.1.d above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.H.2.c)
- d. Emissions testing in accordance with condition V.H.1.d above shall be performed at least once every five years from the most recent stack test. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.H.2.d)
- e. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article

XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.H.2.e)

**3. Monitoring Requirements:**

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 12 during operation of the Mold Making, Shakeout, Sand Reclaim (cooler/classifier), and the Sand Handling and Preparation System(s) processes. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly operated, calibrated, and maintained according to manufacturer's specifications. [§2102.04.e, §2103.12.h.1, Installation Permit no. 0275-I014 V.H.3.a]
- b. The permittee shall check the fan motor amperes for Baghouse No. 12, on a daily basis. [§2102.04.e, §2103.12.i, Installation Permit no. 0275-I014 V.H.3.b]
- c. The permittee shall operate and maintain gauges for the Baghouse No. 12 with differential pressure ranges and accuracies that are approved in writing by the Department. [§2102.04.b.6; §2105.03, Installation Permit no. 0275-I014 V.H.3.c]

**4. Record Keeping Requirements:**

- a. The permittee shall record the amount of sand used and the number of molds produced on a daily, monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j, Installation Permit no. 0275-I014 V.H.4.a)
- b. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse #12 on a daily basis. (§2103.12.a.2.D, §2103.12.j, Installation Permit no. 0275-I014 V.H.4.b)
- c. The permittee shall record the number of hours of operation of the mold making process on a daily basis. (§2103.12.a.2.D, §2103.12.j, Installation Permit no. 0275-I014 V.H.4.c)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.H.4.d)

**5. Reporting Requirements:**

- a. Daily and monthly sand, resin and steel processed totals shall be reported to the Department on a semi-annual basis in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k, Installation Permit no. 0275-I014 V.H.5.a)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition V.H.1.g above, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k, Installation Permit no. 0275-I014 V.H.5.b)
- c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2102.04.b.4, §2103.12.k, Installation Permit no. 0275-I014 V.H.5.c)



**6. Work Practice Standard**

All air pollution control equipment required by Article XXI or any permit or order under Article XXI, and all equivalent compliance techniques which have been approved by the Department pursuant to Article XXI, shall be properly installed, maintained, and operated consistent with good air pollution control practices. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.H.6)

**7. Additional Requirements**

After demonstrating compliance for Condition V.H.2.c above, the permittee shall only use replacement baghouse bags with equal or better (lower grain loading) rated bags than those used in the most recent stack test. (§2102.04.b.6, Installation Permit no. 0275-I014 V.H.7)

**I. Process P005-2: Air Arc Welding Tables**

**Process Description:** Air Arc Welding Tables  
**Facility ID:** P005-2  
**Capacity:** 64,750 tons/year of steel (Max 70% Yield)  
**Fuel/Raw Material:** Steel  
**Control Device(s):** Baghouse No. 6

**1. Restrictions:**

- a. The permittee shall not, at any time, operate the Air Arc Welding Tables unless they are properly operated and maintained according to good engineering and air pollution control practices. (§2105.03, Installation Permit no. 0275-I014 V.I.1.a)
- b. The concentration of filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 6 shall not exceed 0.0052 grains per dry standard cubic foot of airflow at any time. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.I.1.b)
- c. Emissions from Baghouse No. 6 shall not exceed the emissions limitations in Table V-I-1 below: (§2103.12.a.2.B, Installation Permit no. 0275-I014 V.I.1.c)

**Table V.I.1 –Baghouse No. 6 Emissions Limitations**

<b>POLLUTANT</b>	<b>LBS/HR<sup>3,4</sup></b>	<b>TPY<sup>1,3, 4</sup></b>	<b>Facility TPY / lb/ton metal charged<sup>5</sup></b>
PM <sup>2</sup>	2.90	12.69	
PM <sub>10</sub> <sup>2</sup>	2.90	12.69	
PM <sub>2.5</sub> <sup>2</sup>	2.90	12.69	
Nitrogen Oxides	0.50	1.42	45.38 / 0.98
VOC	0.1	0.44	7.94 / 0.17
CO	4.53	12.89	96.25 / 2.08

<sup>1</sup> A year is defined as any 12 consecutive months.

<sup>2</sup> Does not include condensable emissions.

<sup>3</sup> Emission totals are from all sources connected to Baghouse #6, as listed in Table II-1

<sup>4</sup> Based on 6-hour average stack test results.

<sup>5</sup> Facility totals based on stack test results from all facility-wide baghouses exiting the building.

- d. The permittee shall direct all emissions from the Air Arc Welding Tables to Baghouse No. 6. (§2105.03, Installation Permit no. 0275-I014 V.I.1.d)
- e. The differential pressure drop ranges across Baghouse no. 6 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after issuance of this Operating Permit. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.I.1.e)

- f. The permittee shall not discharge to the atmosphere emissions from the baghouse no. 6 stack that equal or exceed 10 percent opacity. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.I.1.f)

**2. Testing Requirements:**

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each at least one (1) hours in length for particulate matter filterable PM<sub>10</sub> and PM<sub>2.5</sub> on the outlet of Baghouse #6 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.I.2.a)
- b. Testing for particulate matter, PM<sub>10</sub> and PM<sub>2.5</sub> shall be performed using USEPA Methods 1 through 5, and Method 201/201A. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.I.2.b)
- c. Compliance of the filterable particulate matter emissions standards of Condition V.I.2.a above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.I.2.c)
- d. Emissions testing in accordance with condition V.I.2.a above shall be performed within 180 days of the issuance of this permit and at least once every five years from the most recent stack test. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.I.2.d)
- e. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.I.2.e)

**3. Monitoring Requirements:**

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 6 during operation of Air Arc Welding or Finishing Operations. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly operated, calibrated, and maintained according to manufacturer's specifications. [§2102.04.e, §2103.12.h.1, Installation Permit no. 0275-I014 V.I.3.a]
- b. The permittee shall check the fan motor amperes for Baghouse No. 6, on a daily basis. [§2102.04.e, §2103.12.i, Installation Permit no. 0275-I014 V.I.3.b]
- c. The permittee shall operate and maintain gauges for the Baghouse No. 6 with differential pressure ranges and accuracies that are approved in writing by the Department. [§2102.04.b.6; §2105.03, Installation Permit no. 0275-I014 V.I.3.c]

**4. Record Keeping Requirements:**

- a. The permittee shall at all times maintain records of attained steel tonnage throughput to the Air Arc Welding Tables and welding rod throughput (monthly, 12-month). (§2103.12.j, Installation Permit no. 0275-I014 V.I.4.a)
- b. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse No. 6 on a daily basis. (§2103.12.a.2.D, §2103.12.j, Installation Permit no. 0275-I014 V.I.4.b)

- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1, Installation Permit no. 0275-I014 V.I.4.c)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, (§63.11519(c)(15) , Installation Permit no. 0275-I014 V.I.4.d)

**5. Reporting Requirements:**

- a. The permittee shall report non-compliance information required to be recorded by V.I.4.c above to the Department in accordance with General III.15 above. The reports shall contain all required information for the time period of the report. (§2103.12.k.1, Installation Permit no. 0275-I014 V.I.5.a)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition V.I.1.e above, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k, Installation Permit no. 0275-I014 V.I.5.b)
- c. Reporting instances of non-compliance in accordance with condition V.I.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.I.5.c)

**6. Work Practice Standard:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.I.6)

**J. Process P005-3: Shot Blast Units**

**Process Description:** Shot Blast Units Nos. 1 and 2  
**Facility ID:** P005-3  
**Capacity:** 64,750 tons/year of steel (Max 70% Yield)  
**Fuel/Raw Material:** Steel  
**Control Device(s):** Shot Blast Unit No. 1 (Baghouse No. 12)  
Shot Blast Unit No. 2 (Baghouse No. 2)

**1. Restrictions:**

- a. The permittee shall not, at any time, operate the Shot Blast Units unless they are properly operated and maintained according to good engineering and air pollution control practices. (§2105.03, Installation Permit no. 0275-I014 V.J.1.a)
- b. The concentration of filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 2 shall not exceed 0.0052 grains per dry standard cubic foot of airflow at any time. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.J.1.b)
- c. Emissions from Baghouse No. 2 shall not exceed the emissions limitations in Table V-J-1 below: (§2103.12.a.2.B, Installation Permit no. 0275-I014 V.J.1.c)

**Table V.J.1 – Baghouse No. 2 Emissions Limitations**

POLLUTANT	LBS/HR <sup>3,4</sup>	TPY <sup>1,3, 4</sup>	Facility TPY / lb/ton metal charged <sup>5</sup>
PM <sup>2</sup>	1.69	7.42	
PM <sub>10</sub> <sup>2</sup>	1.69	7.42	
PM <sub>2.5</sub> <sup>2</sup>	1.69	7.42	
Nitrogen Oxides	0.11	0.30	45.38 / 0.98
VOC	0.1	0.44	7.94 / 0.17
CO	1.39	3.95	96.25 / 2.08

<sup>1</sup> A year is defined as any 12 consecutive months.

<sup>2</sup> Does not include condensable emissions.

<sup>3</sup> Emission totals are from all sources connected to Baghouse #6, as listed in Table II-1

<sup>4</sup> Based on 6-hour average stack test results.

<sup>5</sup> Facility totals based on stack test results from all facility-wide baghouses exiting the building.

- d. The permittee shall direct emissions from the Shot Blast Unit 2 to Baghouse No. 2 and Shot Blast No. 1 to Baghouse No. 12. (§2105.03, Installation Permit no. 0275-I014 V.J.1.d)
- e. The differential pressure drop ranges across Baghouse no. 2 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after issuance of this Operating Permit. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.J.1.e)
- f. The permittee shall not discharge to the atmosphere emissions from the baghouse no. 2 stack that

equal or exceed 10 percent opacity. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.J.1.f)

**2. Testing Requirements:**

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each at least one (1) hours in length for filterable particulate matter, PM10 and PM2.5 on the outlet of Baghouse #2 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.J.2.a)
- b. Testing for particulate matter, PM10 and PM2.5 shall be performed using USEPA Methods 1 through 5, and Method 202, or an alternative method approved in writing by the Department. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.J.2.b)
- c. Compliance of the filterable particulate matter emissions standards of Condition V.J.2.a above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.J.2.c)
- d. Emissions testing in accordance with condition V.J.2.a above shall be performed within 180 days of the issuance of this permit and at least once every five years from the most recent stack test. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.J.2.d)
- e. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.J.2.e)

**3. Monitoring Requirements:**

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 2 during operation of the Shot Blast Unit No. 2 or the Spinner Hanger Blast unit. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly operated, calibrated, and maintained according to manufacturer's specifications. [§2102.04.e, §2103.12.h.1, Installation Permit no. 0275-I014 V.J.3.a]
- b. The permittee shall check the fan motor amperes for Baghouse No. 2, on a daily basis. [§2102.04.e, §2103.12.i, Installation Permit no. 0275-I014 V.J.3.b]
- c. The permittee shall operate and maintain gauges for the Baghouse No. 2 with differential pressure ranges and accuracies that are approved in writing by the Department. [§2102.04.b.6; §2105.03, Installation Permit no. 0275-I014 V.J.3.c]

**4. Record Keeping Requirements:**

- a. The permittee shall at all times maintain records of attained steel tonnage throughput to the Shot Blast Units (monthly, 12-month). (§2103.12.J, Installation Permit no. 0275-I014 V.J.4.a)
- b. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse No. 2 on a daily basis. (§2103.12.a.2.D, §2103.12.j, Installation Permit no. 0275-I014 V.J.4.b)
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon



occurrence along with corrective action taken to restore compliance. (§2103.12.h.1, Installation Permit no. 0275-I014 V.J.4.c)

- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.J.4.d)

**5. Reporting Requirements:**

- a. The permittee shall report non-compliance information required to be recorded by V.J.4.c above to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report. (§2103.12.k.1, Installation Permit no. 0275-I014 V.J.5.a)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition V.J.1.e above, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k, Installation Permit no. 0275-I014 V.J.5.b)
- c. Reporting instances of non-compliance in accordance with condition V.J.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.J.5.c)

**6. Work Practice Standard:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.J.6)

**K. Process P005-4: Spinner Hanger Blast Unit**

**Process Description:** Spinner Hanger Blast Unit  
**Facility ID:** P005-4  
**Capacity:** 64,750 tons/year of steel (Max 70% Yield)  
**Fuel/Raw Material:** Steel  
**Control Device(s):** Baghouse No. 2

**1. Restrictions:**

- a. The permittee shall not, at any time, operate the Spinner Hanger Blast Unit unless it is properly operated and maintained according to good engineering and air pollution control practices. (§2105.03, Installation Permit no. 0275-I014 V.K.1.a)
- b. The concentration of filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 2 shall not exceed 0.0052 grains per dry standard cubic foot of airflow at any time. (§2103.12.a.2.D, §2105.03, Installation Permit no. 0275-I014 V.K.1.b)
- c. Emissions from Baghouse No. 2 shall not exceed the emissions limitations in Table V-K-1 below: (§2103.12.a.2.B, Installation Permit no. 0275-I014 V.K.1.c)

**Table V.K.1 – Baghouse No. 2 Emissions Limitations**

<b>POLLUTANT</b>	<b>LBS/HR<sup>3,4</sup></b>	<b>TPY<sup>1,3, 4</sup></b>	<b>Facility TPY / lb/ton metal charged<sup>5</sup></b>
PM <sup>2</sup>	1.69	7.42	
PM <sub>10</sub> <sup>2</sup>	1.69	7.42	
PM <sub>2.5</sub> <sup>2</sup>	1.69	7.42	
Nitrogen Oxides	0.11	0.30	45.38 / 0.98
VOC	0.1	0.44	7.94 / 0.17
CO	1.39	3.95	96.25 / 2.08

<sup>1</sup> A year is defined as any 12 consecutive months.

<sup>2</sup> Does not include condensable emissions.

<sup>3</sup> Emission totals are from all sources connected to Baghouse #6, as listed in Table II-1

<sup>4</sup> Based on 6-hour average stack test results.

<sup>5</sup> Facility totals based on stack test results from all facility-wide baghouses exiting the building.

- d. The permittee shall direct all emissions from the Spinner Hanger Blast Unit to Baghouse No. 2. (§2105.03, Installation Permit no. 0275-I014 V.K.1.d)
- e. The differential pressure drop ranges across Baghouse no. 2 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after issuance of this Operating Permit. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.K.1.e)
- f. The permittee shall not discharge to the atmosphere emissions from the baghouse no. 2 stack that equal or exceed 10 percent opacity. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.K.1.f)

**2. Testing Requirements:**

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each at least one (1) hours in length for filterable particulate matter, PM10 and PM2.5 on the outlet of Baghouse #2 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.K.2.a)
- b. Testing for particulate matter, PM10 and PM2.5 shall be performed using USEPA Methods 1 through 5, and Method 202, or an alternative method approved in writing by the Department. (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.K.2.b)
- c. Compliance of the filterable particulate matter emissions standards of Condition V.K.2.a above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1, Installation Permit no. 0275-I014 V.K.2.c)
- d. Emissions testing in accordance with condition V.K.2.a above shall be performed within 180 days of the issuance of this permit and at least once every five years from the most recent stack test. (§2103.12.a.2.D, Installation Permit no. 0275-I014 V.K.2.d)
- e. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.K.2.e)

**3. Monitoring Requirements:**

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 2 during operation of the Shot Blast Unit No. 2 or the Spinner Hanger Blast units. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly operated, calibrated, and maintained according to manufacturer's specifications. [§2102.04.e, §2103.12.h.1, Installation Permit no. 0275-I014 V.K.3.a]
- b. The permittee shall check the fan motor amperes for Baghouse No. 2, on a daily basis. [§2102.04.e, §2103.12.i, Installation Permit no. 0275-I014 V.K.3.b]
- c. The permittee shall operate and maintain gauges for the Baghouse No. 2 with differential pressure ranges and accuracies that are approved in writing by the Department. [§2102.04.b.6; §2105.03, Installation Permit no. 0275-I014 V.K.3.c]

**4. Record Keeping Requirements:**

- a. The permittee shall at all times maintain records of attained steel tonnage throughput to the Spinner Hanger Blast Unit (monthly, 12-month). (§2103.12.J, Installation Permit no. 0275-I014 V.K.4.a)
- b. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse No. 2 on a daily basis. (§2103.12.a.2.D, §2103.12.j, Installation Permit no. 0275-I014 V.K.4.b)
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1, Installation

Permit no. 0275-I014 V.K.4.c)

- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.K.4.d)

**5. Reporting Requirements:**

- a. The permittee shall report non-compliance information required to be recorded by V.K.4.c above to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report. (§2103.12.k.1, Installation Permit no. 0275-I014 V.K.5.a)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition V.K.1.e above, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k, Installation Permit no. 0275-I014 V.K.5.b)
- c. Reporting instances of non-compliance in accordance with condition V.K.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.K.5.c)

**6. Work Practice Standard:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.K.6)

**L. Process P006-1: Robotic Knuckle Machines**

**Process Description:** Robotic Knuckle Machines  
**Facility ID:** P006-1  
**Capacity:** 64,750 tons/year of steel (Max 70% Yield)  
**Fuel/Raw Material:** Steel  
**Control Device(s):** Dust Collector – Vented Internal to the Building

**1. Restrictions:**

The permittee shall not, at any time, operate the Robotic Knuckle Machines unless they are properly operated and maintained according to good engineering and air pollution control practices. (§2105.03, Installation Permit no. 0275-I014 V.L.1)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 above and Article XXI §2108.02. (§2103.12.h, Installation Permit no. 0275-I014 V.L.2)

**3. Monitoring Requirements:**

None, except as provided elsewhere.

**4. Record Keeping Requirements:**

- a. The permittee shall at all times maintain records of attained steel tonnage throughput to the Robotic Knuckle Machines (monthly, 12-month). (§2103.12.J, Installation Permit no. 0275-I014 V.L.4.a)
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance.(§2103.12.h.1, Installation Permit no. 0275-I014 V.L.4.b)
- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.L.4.c)

**5. Reporting Requirements:**

- a. The permittee shall report non-compliance information required to be recorded by V.L.4.b above to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report. (§2103.12.k.1, Installation Permit no. 0275-I014 V.L.5.a)
- b. Reporting instances of non-compliance in accordance with condition V.L.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.L.5.b)

**6. Work Practice Standard:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.L.6)



**M. Process P006-2: Hand Grinding Stations**

**Process Description:** Hand Grinding Stations  
**Facility ID:** P006-2  
**Capacity:** 64,750 tons/year of steel (Max 70% Yield)  
**Fuel/Raw Material:** Steel  
**Control Device(s):** Building Dust Collectors

**1. Restrictions:**

The permittee shall not, at any time, operate the Hand Grinding Station operations unless they are properly operated and maintained according to good engineering and air pollution control practices. (§2105.03, Installation Permit no. 0275-I014 V.M.1)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 above and Article XXI §2108.02. (§2103.12.h, Installation Permit no. 0275-I014 V.M.2)

**3. Monitoring Requirements :**

None except as specified elsewhere.

**4. Record Keeping Requirements):**

- a. The permittee shall at all times maintain records of attained steel tonnage throughput (monthly, 12-month). (§2103.12.J, Installation Permit no. 0275-I014 V.M.4.a)
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance.(§2103.12.h.1, Installation Permit no. 0275-I014 V.M.4.b)
- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.M.4.c)

**5. Reporting Requirements:**

- a. The permittee shall report non-compliance information required to be recorded by Condition V.M.4.b above to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report. (§2103.12.k.1, Installation Permit no. 0275-I014 V.M.5.a)
- b. Reporting instances of non-compliance in accordance with Condition V.M.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.M.5.b)

**6. Work Practice Standards**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.M.6)

**N. Process P007-1: Heat Treating Furnaces****Facility ID: P007-1****Max. Design Rate: 6.0 MMBtu/hr (each)****Capacity: 60 MMBtu/hr (10 units total)****Raw Materials: Natural Gas****Control Device: None – Internal emissions exhausted through the facility-wide baghouse stacks****1. Restrictions:**

- a. Emissions of nitrogen oxides (NO<sub>x</sub>) from the Heat Treating Furnaces shall not exceed 0.055 lbs/mmBtu of heat input. (§2103.12.a.2.B, Installation Permit no. 0275-I014 V.N.1.a)
- b. Emissions of carbon monoxide (CO) from the Heat Treating Furnaces shall not exceed 0.037 lbs/mmBtu of heat input. (§2103.12.a.2.B, Installation Permit no. 0275-I014 V.N.1.b)
- c. Only commercial quality natural gas shall be combusted by the permittee in the Heat Treating Furnaces. (§2103.12.h.1, Installation Permit no. 0275-I014 V.N.1.c)
- d. Combined natural gas usage in the Heat Treating Furnaces shall not exceed a total of 526 million cubic feet in any 12 consecutive months. (§2103.12.a.2.B, Installation Permit no. 0275-I014 V.N.1.d)
- e. Combined emissions from the Heat Treating Furnaces shall not at any time exceed the total emissions limitations in Table V-N-1 below: (§2103.12.a.2.B, §2104.03.c, Installation Permit no. 0275-I014 V.N.1.e)

**TABLE V-N-1 – Heat Treating Furnaces Emission Limitations**

<b>POLLUTANT</b>	<b>LBS/HR</b>	<b>TPY*</b>
Filterable Particulate Matter, PM**	0.11	0.50
PM <sub>10</sub>	0.46	2.00
PM <sub>2.5</sub>	0.46	2.00
NO <sub>x</sub>	3.30	14.45
SO <sub>x</sub>	0.04	0.16
CO	2.22	9.72
VOC	0.33	1.44
HAPs	0.11	0.47

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

\*\*Filterable Only. Does not include condensable emissions

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level

Condition IV.14 above entitled “Emissions Testing.” (§2103.12.h.1, Installation Permit no. 0275-I014 V.N.2)

**3. Monitoring Requirements:**

None, except as provided elsewhere.

**4. Record Keeping Requirements:**

- a. The permittee shall maintain records of the hours of operation and amount of natural gas usage (monthly and 12-month) for the Heat Treating Furnaces (§2103.12.j, Installation Permit no. 0275-I014 V.N.4.a)
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance.(§2103.12.h.1, Installation Permit no. 0275-I014 V.N.4.b)
- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.N.4.c)

**5. Reporting Requirements:**

- a. The permittee shall report non-compliance information required to be recorded by V.N.4.b above to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report. (§2103.12.k.1, Installation Permit no. 0275-I014 V.N.5.a)
- b. Reporting instances of non-compliance in accordance with condition V.N.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, Installation Permit no. 0275-I014 V.N.5.b)

**6. Work Practice Standards:**

- a. The permittee shall not, at any time, operate the Reheat Furnaces unless they are properly operated and maintained according to good engineering and air pollution control practices. (§2105.03, Installation Permit no. 0275-I014 V.N.6.a)
- b. The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer’s recommendations and good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.N.6.b)

**O. Process P001-2: Ladle Preheaters**

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

The permittee is also subject to the following conditions:

**1. Restrictions:**

- a. The permittee shall maintain and operate the Ladle Preheaters in conformance with manufacturer's specifications and/or good engineering practices. (§2105.03, Installation Permit no. 0275-I014 V.O.1.a)
- b. At no time shall the permittee operate the Ladle Preheaters using any fuel other than oxy-fuel (natural gas and oxygen). (§2103.12.h.1, Installation Permit no. 0275-I014 V.O.1.b)
- c. Emissions shall not exceed the following at any time (§2102.04.b.6, §2103.20.b.4, Installation Permit no. 0275-I014 V.O.1.c):

**Table V.O.1 –Ladle Preheater Emissions Limitations**

POLLUTANT	LBS/HR	TPY <sup>1</sup>
Particulate Matter	0.063	0.28
PM10	0.063	0.28
PM2.5	0.063	0.28
NO <sub>x</sub>	1.75	7.66
SO <sub>2</sub>	0.004	0.02
CO	0.03	0.13
VOC	0.05	0.20

<sup>1</sup> A year is defined as any 12 consecutive months.

**2. Testing Requirements**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1, Installation Permit no. 0275-I014 V.O.2)

**3. Monitoring Requirements**

None except as provided elsewhere.

**4. Record Keeping Requirements**

- a. The permittee shall keep monthly records of the hours of operation and the amounts of natural gas and oxygen usage for the Ladle Preheaters. (§2103.12.h.1, Installation Permit no. 0275-I014 V.O.4.a)
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1, Installation Permit no. 0275-I014 V.O.4.b)
- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2, Installation Permit no. 0275-I014 V.O.4.c)

**5. Reporting Requirements**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, §2102.04.b.6, Installation Permit no. 0275-I014 V.O.5.a)
  - 1) Annual hours of operation, natural gas and oxygen usage required to be recorded by condition V.O.4.a above; and
  - 2) Non-compliance information required to be recorded by V.O.4.b above.
- b. Reporting instances of non-compliance in accordance with condition V.O.5.a.2) above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition III.15 above, if appropriate. (§2103.12.k.1, §2102.04.b.6, Installation Permit no. 0275-I014 V.O.5.b)

**6. Work Practice Standards**

None except as provided elsewhere.



## VI. MISCELLANEOUS

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
P001-3A	Stopper Rod Table 1	None	0.2 MMBtu/hr	Natural Gas	N/A
P001-3B	Stopper Rod Table 2	None	0.2 MMBtu/hr	Natural Gas	N/A
P001-4	Lance Table	None	0.2 MMBtu/hr	Natural Gas	N/A
P005-1	Gas Torch Burning	None	0.5 MMBtu/hr	Natural Gas	N/A
B001	Space Heaters and Furnaces	None	10 MMBtu/hr (total)	Natural Gas	N/A
B002	In-Building Equipment (propane)				
B003	In-Building Equipment (fuel oil)				
D001	Fuel Oil Tank	None	500 Gallons	Fuel Oil	N/A
F001	On-Site Vehicles	None	35 In-Plant Vehicles	N/A	N/A
F002	In-Building Vehicle Traffic	None			N/A
EX001	Sand Silos (2)	Bin Vent Collectors		Sand	N/A
EX004	Closed Loop Cooling Towers	None			

## **VII. ALTERNATIVE OPERATING SCENARIOS**

No alternative operating scenarios exist for this operation.

**VIII. EMISSIONS LIMITATIONS SUMMARY**

*[This section is provided for informational purposes only and is not intended to be an applicable requirement.]*

The tons per year emission limitations for the McConway & Torley facility are summarized in the following table:

**TABLE VIII-1  
Emission Limitations**

<b>POLLUTANT</b>	<b>ANNUAL EMISSION LIMIT (tons/year)*</b>
PM <sub>10</sub>	52.94
PM <sub>2.5</sub>	52.03
Nitrogen Oxides	45.38
Sulfur Oxides	25.1
Carbon Monoxide	96.25
Volatile Organic Compounds**	14.94
Benzene	1.21
Metal HAPs	0.16
Chromium	0.014
Manganese	0.10
Total HAPs	7.98

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

\*\* Includes Alcohol Wash and Mold Release potential emissions.