HUNTINGTON ALLOYS CORPORATION
A Special Metals Company

3200 Riverside Dr.

Huntington, WV 25705-1771 U.S.A.
(304) 526-5259 Fax:(304) 526-5437
www.specialmetals.com

Tom Bell
Environmental Manager

April 27, 2018

William F. Durham
Director
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Dear Mr. Durham,

Please find enclosed the Huntington Alloys Corporation Title V renewal application. The renewal has been completed per the renewal application requirements under section 4.3 of 45CSR30. Due to time constraints we have decided to make everything non confidential.

This package should include two copies of the emission units, control devices, electronic copies on a thumb drive table of contents, and facility maps.

If you should have any questions or require further information please do not hesitate to contact me at (304) 526-5259.

Sincerely,

Tom Bell
Environmental Manger

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475
www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):**
Huntington Alloys Corporation

2. Facility Name or Location:
Huntington Alloys Corporation
Huntington WV Facility

3. DAQ Plant ID No.:
0 1 1 — 0 0 0 0 7

4. Federal Employer ID No. (FEIN):
5 5 - 0 7 8 5 7 6 6

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? MM/DD/1922
☒ Permit Renewal — What is the expiration date of the existing permit? 10/31 /2018
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

8. Number of onsite employees:
940

9. Governmental Code:

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: 3200 Riverside Drive		
City: Huntington	**State:** WV	**Zip:** 25705-
Telephone Number: (304) 526-5100	**Fax Number:** ( ) -	

12. Facility Location		
Street: 3200 Riverside Drive	**City:** Huntington	**County:** Cabell
UTM Easting: 379.20 km	**UTM Northing:** 4,252.30 km	**Zone:** ☒ 17 or ☐ 18
Directions: Interstate 64 W to 29th Street Exit (Route 60), go towards Huntington on Route 60 to Washington Road intersection with Route 60. Make a right and go across Washington Road bridge. Right turn on Riverside Drive. Enter plant through Main Gate.		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☒ Yes ☐ No		**If yes, for what air pollutants?** PM2.5 (1997)
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** Ohio Kentucky
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: David Brautigan		**Title:** General Manager
Street or P.O. Box: 3200 Riverside Drive		
City: Huntington	**State:** WV	**Zip: 25705**
Telephone Number: (304) 526-5300	**Fax Number:** ( ) -	
E-mail address: david.brautigan@specialmetals.com		
Environmental Contact: Tom Bell		**Title:** Environmental Manager
Street or P.O. Box: 3200 Riverside Drive		
City: Huntington	**State:** WV	**Zip: 25705**
Telephone Number: (304) 526-5259	**Fax Number:** ( ) -	
E-mail address: tbell@specialmetals.com		
Application Preparer: Amanda Williams		**Title:** Environmental Specialist
Company: Special Metals Corporation		
Street or P.O. Box: 3200 Riverside Drive		
City: Huntington	**State:** WV	**Zip:** 25705
Telephone Number: (304) 526-5259	**Fax Number:** ( ) -	
E-mail address: Amanda.williams@specialmetals.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Huntington Alloys Corp. is a nickel manufacturing facility. This facility produces ingots, slabs, plate, sheet, strip, billets, rods, wire, pipe and tubing in approximately one hundred and twenty (120) different alloys.	Huntington Alloys Corp. melting facilities and rolling mills are devoted exclusively to the production of wrought nickel and high nickel alloy products.	33149	3356

Provide a general description of operations.

Huntington Alloys Corporation is a large rolling mill devoted exclusively to the production of wrought nickel and high nickel alloy products. This facility produces ingots, slabs, plate, sheet, strip, billets, rods, wire, pipe and tubing in approximately one hundred and twenty different alloys. It incorporates some two hundred manufacturing operations which include: melting and remelting of metals to produce alloy ingots, hot and cold rolling, forging, drawing, machining, grinding, shot blasting, pickling, annealing, and ancillary testing and by-product recovery operations.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☐ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☒ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☒ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

40CFR Part 60 subpart Dc - New Source Performance Standards (NSPS) for Small Industrial Steam Generating Units. The Main Boiler and V.I.M. boiler were constructed before June 9, 1989 and have not been modified after that date. The CAP Salt Bath and West Pickle Salt Bath have capacities less than 10 MMBtu/hr.

40CFR Part 60 subpart K - New Source Performance Standards (NSPS) for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978. There are no tanks storing petroleum liquids at the Huntington Alloys facility that were constructed between June 11, 1973 and May 19, 1978 and are greater than 151,412 liters (40,000 gallons).

☒ Permit Shield

19. Non Applicability Determinations *(Continued)* - *Attach additional pages as necessary.*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

40 CFR 60 Subpart Ka - New Source Performance Standards (NSPS) for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984. Some of the petroleum liquid storage tanks exceed the 151,416 liters (40,000 gallons) threshold capacity but are not subject to the standards because the vapor pressures of the storage tanks are less than the 10.3 kilopascal trigger listed in 40 CFR § 60.112a(a) and the 6.9 kilopascal trigger listed in 40 CFR § 60.115a(d)(1).

40 CFR 60 Subpart Kb - New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Some of the tanks storing volatile organic liquids have a capacity greater than 75 m3 and less than 151m3, but are not subject to the provisions of this subpart because the vapor pressures of the tanks are less than the 15 kilopascal trigger listed in 40 CFR§ 60.110b(b).

40 CFR Part 60 Subpart AAa - New Source Performance Standards (NSPS) for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983. The #4 Electric Arc Furnace, #5 Electric Arc Furnace, and AOR vessel were installed in 1966, 1971, and 1971 respectively, before the applicability date of this regulation (October 21, 1974). Therefore, this regulation is not applicable to the facility.

40 CFR Part 63 - Subpart CCC - National Emission Standards for Hazardous Air Pollutants for Steel Pickling-HCl Process Facilities and Hydrochloric Acid Regeneration Plants. This standard is not applicable to facilities that pickle specialty steel. Specialty Steel means a category of steel that includes silicon electrical, alloy and stainless steels.

40 CFR Park 63 – Subpart YYYYY – National Emission Standard for Hazardous Air Pollutants for Area/Sources: Electric Arc Furnace Steelmaking Facilities. This standard is applicable to area sources. Huntington Alloys in not an area source of HAPs.

☒ Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

Open burning [45CSR§6-3.1.]

Open burning exemptions [45CSR§6-3.2.]

Asbestos [40 C.F.R. 61 and 45CSR15]

Odor [45CSR§4-3.1 State-Enforceable only.]

Standby plan for reducing emissions [45CSR§11-5.2]

Emission inventory [W.Va. Code § 22-5-4(a)(14)]

Ozone-depleting substances [40 C.F.R. 82, Subpart F]

Risk Management Plan [40 C.F.R. 68]

Fugitive Particulate [45CSR§7-5.1. and 45CSR13 - R13-2163, Condition B.3.]

Fugitive Particulate [45CSR§7-5.2. and 45CSR13 - R13-2163, Condition B.3.]

Malfunction [45CSR§7-10. and 45CSR13 - R13-2163, Condition B.3.]

Natural gas FERC requirement [45CSR§30-12.7.]

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Odors. For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken. [45CSR§30-5.1.c. State-Enforceable only.]

Fugitives. The permittee shall monitor all fugitive PM emission sources as required by Subsection 3.1.9. to ensure that a system to minimize fugitive emissions has been installed or implemented. Records shall be maintained on site stating the types of fugitive PM capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.[45CSR§30-5.1.c.]

Fugitives. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures as required by Subsection 3.1.10. applied at the facility. These records shall be maintained on site.[45CSR§30-5.1.c.]

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements *(Continued)* - *Attach additional pages as necessary.*

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

☐ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-0137	03/24/1975	
R13-1165	11/03/1989	
R13-1646	12/01/1993	
R13-1767	10/17/1994	
R13-2163A	12/20/2010	
R13-2532D	04/13/2011	
R13-2532I	02/25/2016	
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	267.9
Nitrogen Oxides (NO_X)	314.6
Lead (Pb)	
Particulate Matter ($PM_{2.5}$)[1]	
Particulate Matter (PM_{10})[1]	130.9
Total Particulate Matter (TSP)	130.9
Sulfur Dioxide (SO_2)	8.92
Volatile Organic Compounds (VOC)	51.0
Hazardous Air Pollutants[2]	Potential Emissions
Nickel	27.2
Chromium	7.6
Hydrochloric Acid	3.9
Hexane	5.8
Regulated Pollutants other than Criteria and HAP	Potential Emissions

[1] $PM_{2.5}$ and PM_{10} are components of TSP.
[2] For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

		24. Insignificant Activities (Check all that apply)
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☒	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☒	14.	Demineralized water tanks and demineralizer vents.
☒	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☐	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☐	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☒	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☒	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☒	28.	Flares used solely to indicate danger to the public.
☐	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☒	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☐	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☒	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.
☒	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)

24. Insignificant Activities (Check all that apply)		
☐	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
☒	43.	Process water filtration systems and demineralizers.
☒	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☒	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☐	50.	Space heaters operating by direct heat transfer.
☒	51.	Steam cleaning operations.
☒	52.	Steam leaks.
☐	53.	Steam sterilizers.
☒	54.	Steam vents and safety relief valves.
☒	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☒	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☐	58.	Tobacco smoking rooms and areas.
☐	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.
26. Emission Units
For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.
For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.
27. Control Devices
For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: David Brautigan	Title: General Manager

Responsible official's signature:

Signature: _____ Signature Date: 4/27/18

(Must be signed and dated in blue ink)

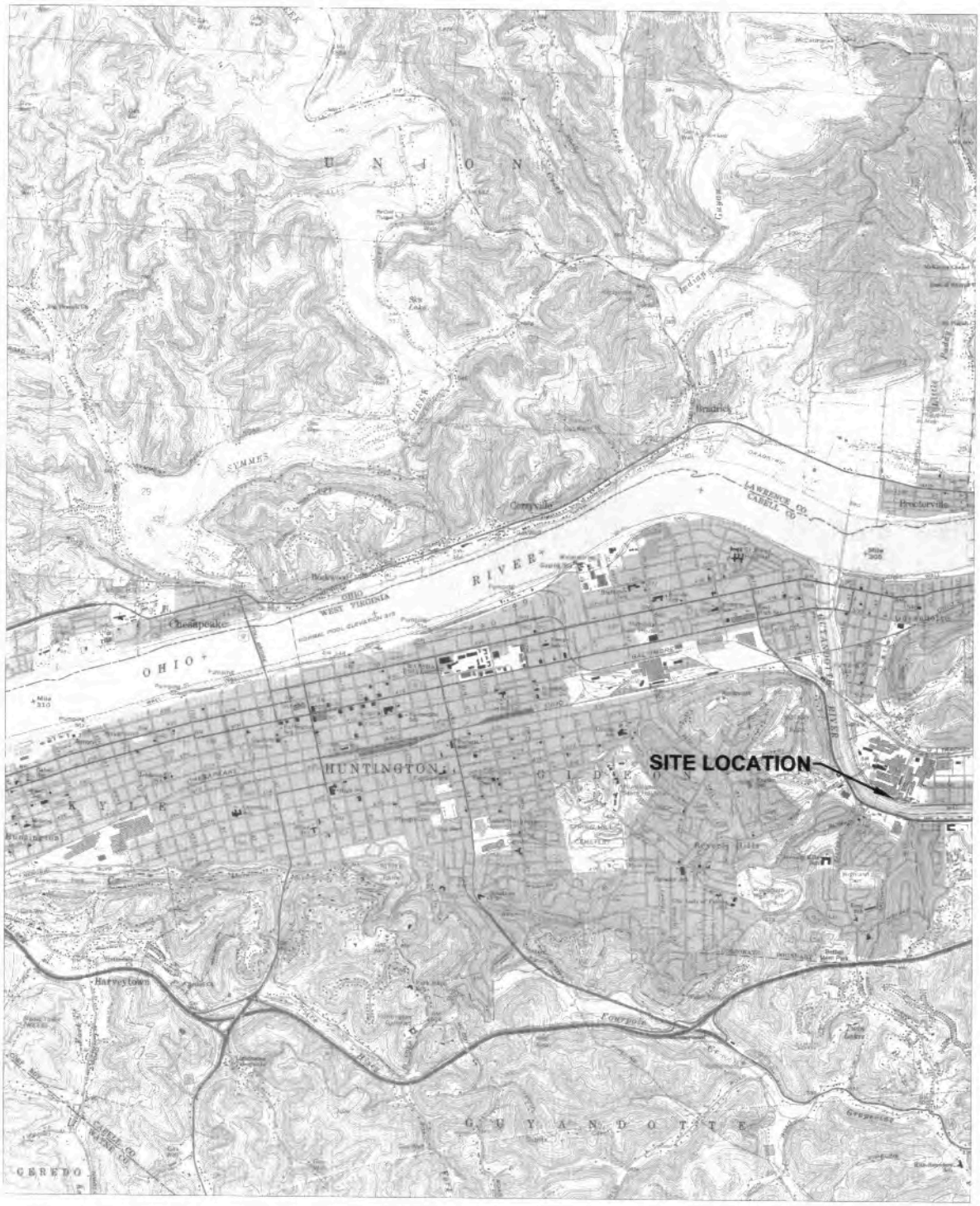
Note: Please check all applicable attachments included with this permit application:

☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

Area Map



0 1000 2000 3000
SCALE FEET

MAGNETIC NORTH

REV	DATE	DESCRIPTION / REVISION DESCRIPTION	DES	CADD	CHK	RVW
1	YYYY-MM-DD	DESCRIPTION	XXX	XXX	XXX	XXX

PROJECT
HUNTINGTON ALLOYS
TITLE V PERMIT
HUNTINGTON, WV

TITLE
SITE MAP
3200 RIVERSIDE DRIVE
HUNTINGTON, WEST VIRGINIA 24705

Golder Associates

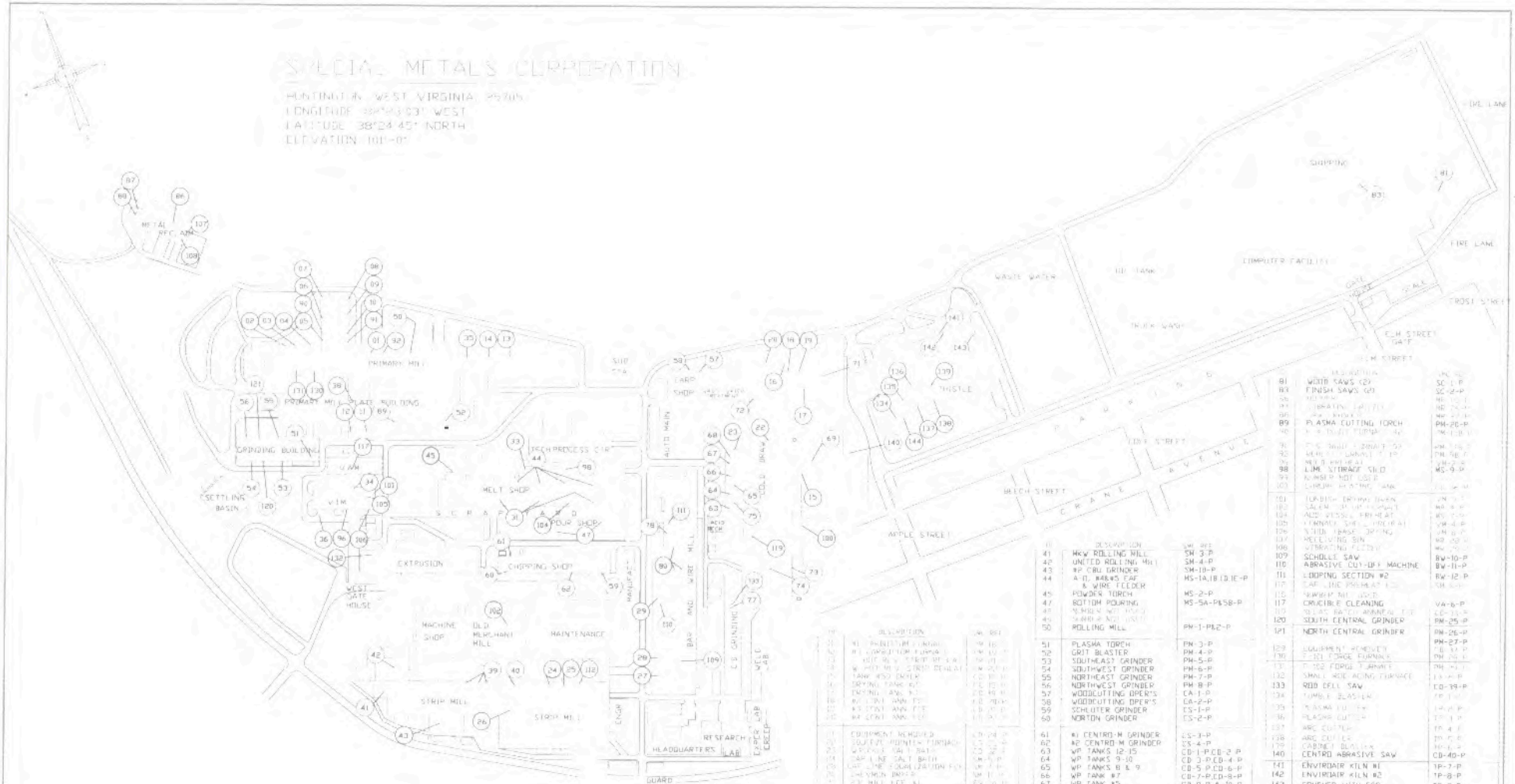
PROJECT No.	123-99821		FILE No.	Huntington - Site Map
DESIGN	XXX	YYYY-MM-DD	SCALE	SCALE
CADD	XXX	YYYY-MM-DD	FIGURE	
CHECK	XXX	YYYY-MM-DD		1
REVIEW	XXX	YYYY-MM-DD		

ATTACHMENT B

Plot Plan

SPECIAL METALS CORPORATION

HUNTINGTON, WEST VIRGINIA 25705
LONGITUDE 82°08'03" WEST
LATITUDE 38°24'45" NORTH
ELEVATION 101'-0"



ID	DESCRIPTION	SMC REF
41	#6W ROLLING MILL	SM-3-P
42	UNITED ROLLING MILL	SM-4-P
43	#9 CBU GRINDER	SM-10-P
44	A.O. #8845 TAP & WIRE FEEDER	MS-1A,1B,1C,1E-P
45	POWDER TORCH	MS-2-P
47	BOTTOM POURING	MS-5A-P&SB-P
50	ROLLING MILL	PM-1-P&2-P
51	PLASMA TORCH	PM-3-P
52	GRIT BLASTER	PM-4-P
53	SOUTHEAST GRINDER	PM-5-P
54	SOUTHWEST GRINDER	PM-6-P
55	NORTHEAST GRINDER	PM-7-P
56	NORTHWEST GRINDER	PM-8-P
57	WOODCUTTING OPER'S	CA-1-P
58	WOODCUTTING OPER'S	CA-2-P
59	SCHLUTER GRINDER	CS-1-P
60	NORTON GRINDER	CS-2-P
61	#1 CENTRO-M GRINDER	CS-3-P
62	#2 CENTRO-M GRINDER	CS-4-P
63	WP TANKS 12-15	CD-1-P,CD-2-P
64	WP TANKS 9-10	CD-3-P,CD-4-P
65	WP TANKS 6 & 9	CD-5-P,CD-6-P
66	WP TANK #7	CD-7-P,CD-8-P
67	WP TANK #5	CD-9-P & 10-P
68	WP TANK #3	CD-11-P & 12-P
69	EAST PICKLE HOUSE	CD 13-P & 14-P
70	EQUIPMENT REMOVED	CD-16-P
71	EAST CUTTERS (2 SAWS)	CD-17-P
72	WEST CUTTERS (3 SAWS)	CD-23-P
73	McKAY TUBE RED SAW	CD-26-P
74	WEAN TUBE RED SAW	CD-28-P
75	WP TANK #11	CD-38-P
77	GRIND BUILDING SAW	CD-31-P
78	LOOPING SECT'S	BW-3-P
80	[illegible]	SW-7-P,8-P,9-P
81	WIDTH SAWS (2)	SC-1-P
83	FINISH SAWS (2)	SC-2-P
89	PLASMA CUTTING TORCH	PM-26-P
98	LIME STORAGE SILO	MS-9-P
101	TURNING ROLLS	SM-1-P
102	SAWS (2)	MS-6-P
103	ACID VESSEL PRE-HEAT	BW-7-P
104	FURNACE, SMALL (PICKLE)	SM-8-P
106	STRIP TABLE, DRYING	SM-9-P
107	RECEIVING BIN	MS-10-P
108	STRAIGHTENING ROLLS	SM-11-P
109	SCHOLLE SAW	BW-10-P
110	ABRASIVE CUT-OFF MACHINE	BW-11-P
111	LOOPING SECTION #2	BW-12-P
117	CRUCIBLE CLEANING	VA-6-P
119	SLURRY RETURN PUMP	VA-7-P
120	SOUTH CENTRAL GRINDER	PM-25-P
121	NORTH CENTRAL GRINDER	PM-26-P
129	EQUIPMENT REMOVED	PM-27-P
130	E-101 FORGE FURNACE	PM-28-P
132	E-102 FORGE FURNACE	PM-29-P
133	SMALL ROD AGING FURNACE	TP-4-P
134	ROD CELL SAW	CD-39-P
135	TUMBLE BLASTER	TP-1-P
136	PLASMA TORCH	TP-2-P
137	PLASMA CUTTER	TP-3-P
138	ARC CUTTER	TP-5-P
139	ARC CUTTER	TP-6-P
140	CENTRO ABRASIVE SAW	CD-40-P
141	ENVIROAIR KILN #1	TP-7-P
142	ENVIROAIR KILN #2	TP-8-P
143	CRUSHER WITH ESP	TP-9-P
144	TUMBLE BLASTER UNIT	TP-1-P

ID	DESCRIPTION	SMC REF
1	[illegible]	PM-1A,1B-P
2	[illegible]	PM-2A-P
3	[illegible]	PM-3A-P
4	[illegible]	PM-4A-P
5	[illegible]	PM-5A-P
6	[illegible]	PM-6A-P
7	[illegible]	PM-7A-P
8	[illegible]	PM-8A-P
9	[illegible]	PM-9A-P
10	[illegible]	PM-10A-P
11	[illegible]	PM-11A-P
12	[illegible]	PM-12A-P
13	[illegible]	PM-13A-P
14	[illegible]	PM-14A-P
15	[illegible]	PM-15A-P
16	[illegible]	PM-16A-P
17	[illegible]	PM-17A-P
18	[illegible]	PM-18A-P
19	[illegible]	PM-19A-P
20	[illegible]	PM-20A-P
21	[illegible]	PM-21A-P
22	[illegible]	PM-22A-P
23	[illegible]	PM-23A-P
24	[illegible]	PM-24A-P
25	[illegible]	PM-25A-P
26	[illegible]	PM-26A-P
27	[illegible]	PM-27A-P
28	[illegible]	PM-28A-P
29	[illegible]	PM-29A-P
30	[illegible]	PM-30A-P
31	[illegible]	PM-31A-P
32	[illegible]	PM-32A-P
33	[illegible]	PM-33A-P
34	[illegible]	PM-34A-P
35	[illegible]	PM-35A-P
36	[illegible]	PM-36A-P
37	[illegible]	PM-37A-P
38	[illegible]	PM-38A-P
39	CAP LINE PICKLING	SM-1-P
40	CAP LINE SHOT BLAST	SM-2-P

ID	DESCRIPTION	SMC REF
31	MS PREHEAT BURNER	MS-3A,3B,4A,4B,4C,4D
33	MAIN BOILER	[illegible]
34	VIM BOILER	[illegible]
35	TIP-UP FURNACE	[illegible]
36	STRESS RELIEF FURNACE	[illegible]
37	HOT NOT USED	[illegible]
38	PLATE ANNEAL PIT	[illegible]
39	CAP LINE PICKLING	SM-1-P
40	CAP LINE SHOT BLAST	SM-2-P

SCALE: 1" = 100'

THESE ARE THE SOURCES AND POINTS OF VISUAL EMISSION CHECKS

PART	DESCRIPTION	REQ'D	MATERIAL	CODE NO.	MK

REVISION	NAME	DATE	CHK'D	ENGR APPROV
MOVED ADDED ID POINTS (#1 - 143)	RAP	1/7/1		

MK	REVISION	NAME	DATE	CHK'D	ENGR APPROV
J	ADDED ID 140	DAH	4/13	BCB	
H	ADDED THISTLE POINTS	DAH	4/10	BCB	
G	GENERAL REVISION	DAH	4/09	CEP	
F	GENERAL REVISION	DAH	5/08	CEP	
E	GENERAL REVISION	DAH	3/00	CEP	

MK	REVISION	NAME	DATE	CHK'D	ENGR APPROV
D	ADDED SMALL ROD AGING [illegible] #133	CEP	9/07	CEP	
C	MODIFIED VISUAL EMISSIONS	DAH	11/01	DAH	
B	PREVIOUS NUMBERS CHANGED FROM ID 144 TO ID #145. REMOVED ID #48 & #49	BCH	8/99		
A	ADDED ID #130 & #131	TCH	5/97		

REFERENCE DRAWINGS
OUTSIDE THROUGH 023807
TOP SIDE SCC

DATE	2.05.76
SCALE	1/16" = 1'-0"
DRAWN	BCH
CHK'D	ANGELI
APPVD	
PO NO.	
JOB NO.	

SPECIAL METALS

EMISSION SOURCES - HUNTINGTON PLANT
POINT ID NUMBERS
ENVIRONMENTAL CONTROL

EQUIP. No. 999

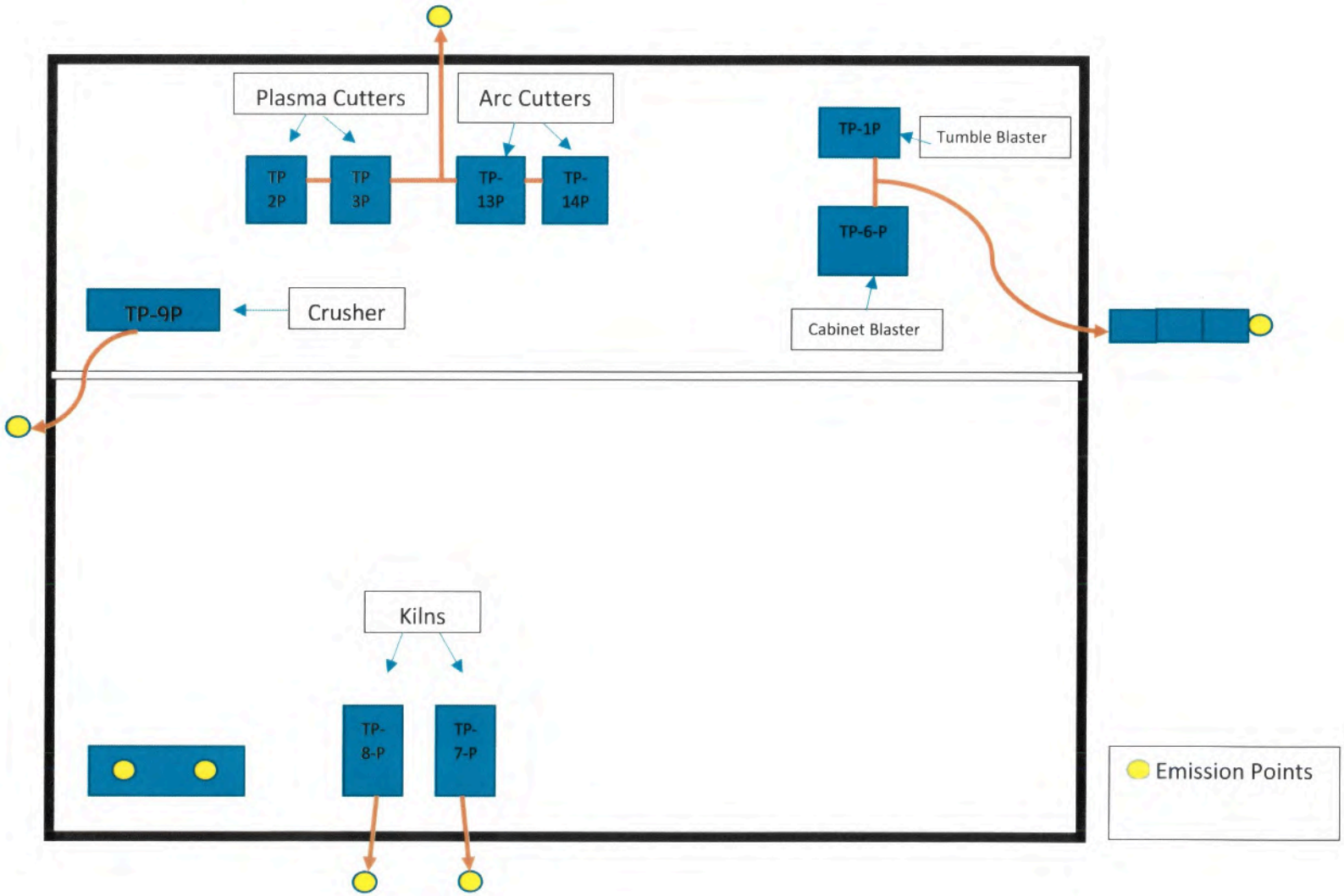
DRAWING NO. 0167019

RPC

Title V Emissions

Map D-27819 Emission Sources

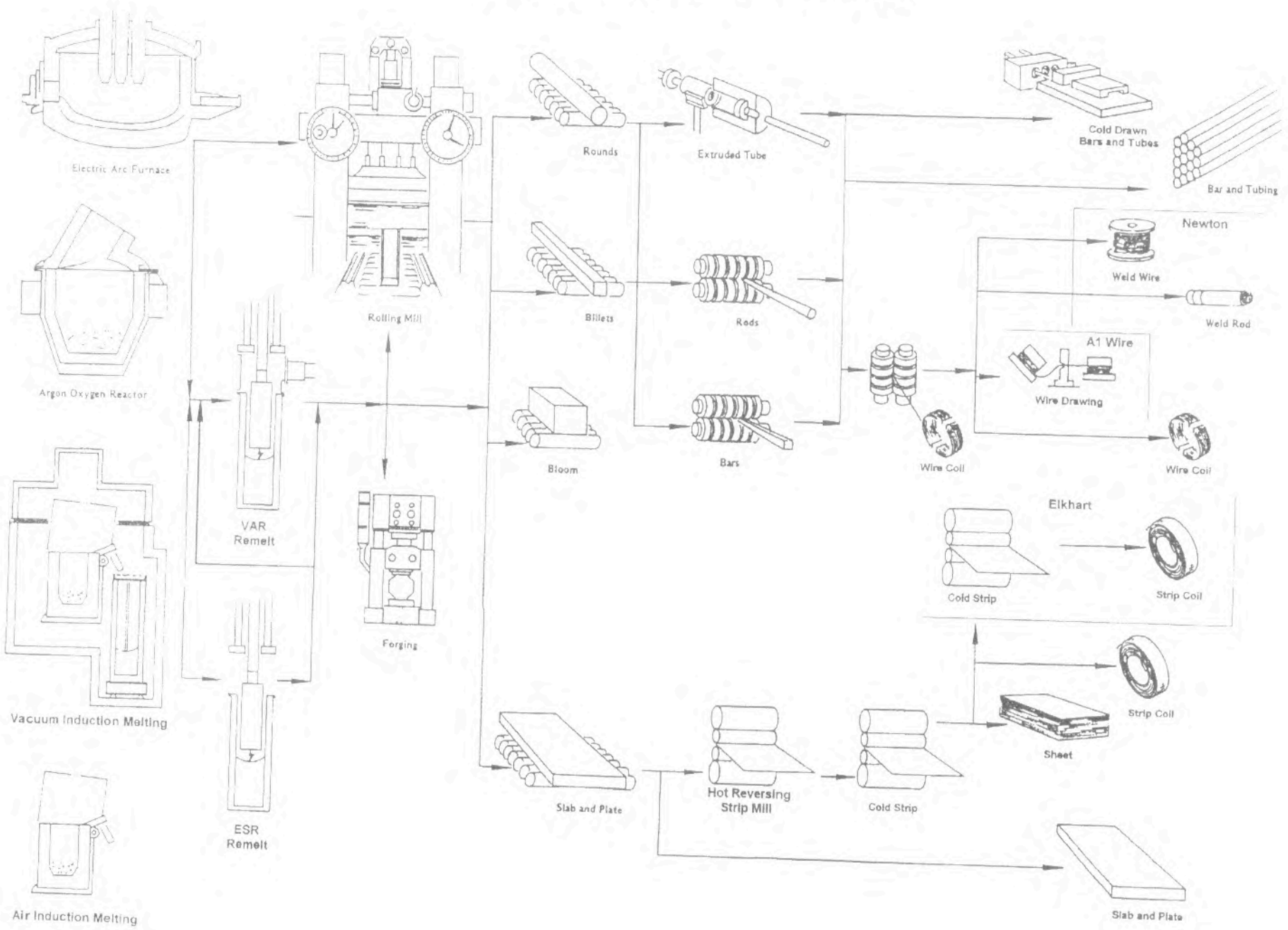
Point ID numbers



ATTACHMENT C

Process Flow Diagram

HBE Production Process Routes



ATTACHMENT D

Title V Equipment Table

ATTACHMENT D – Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID[1]	Emission Point ID[1]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device[1]
Melt Shop					
B-1-P	B-1-S	Main Boiler	1952	80 MMBtu/hr	None
MS-1D	MS-1-S1& MS-1-S2	#4 Electric Arc Furnace	1966	35,000 lbs/hr	Baghouses MS-1-C1 & MS-1-C2
MS-1B		#5 Electric Arc Furnace	1971	35,000 lbs/hr	
MS-1A		Argon Oxygen Reactor	1971	35,000 lbs/hr	
MS-1E-P		Wire Feeder	2005	70,000 lbs/hr	
MS-2	MS-2-S	Powder Torch	1962	35,000 lbs/hr	Baghouse MS-2-C
MS-9-P	MS-9-S	Lime Storage Silo	1975	30,000 lbs/hr	Baghouse MS-9-C
Primary Mill (PM)					
PM-1 & 2P	PM-1-S & PM-2-S	#1 Primary Rolling Mill	1964	100,000 lbs/hr	None
PM-3-P	PM-3-S	Plasma Cutting Torch	1966	3,000 lbs/hr	None
PM-4-P	PM-4-S	Grit Blaster (Plate Cleaning Machine)	<1970	3,900 lbs/hr	Baghouse PM-4-C
PM-5-P	PM-5-S	Southeast Grinder	1980	8,000 lbs/hr	Baghouse PM-5-C
PM-25-P	PM-6-S & PM-25-S	Southcentral Grinder	1966	8,000 lbs/hr	Baghouse PM-6-C & PM-25-C
PM-6-P		Southwest Grinder	1974		
PM-7-P	PM-7-S	Northeast Grinder	1965	8,000 lbs/hr	Baghouse PM-7-C
PM-26-P	PM-8-S & PM-26-S	Northcentral Grinder	1980	8,000 lbs/hr	Baghouse PM-8A-C, PM-8B-C, & PM-26-C
PM-8-P		Northwest Grinder	1966		
PM-10A-P	PM-10A-S	Forge Furnace F2-21, 10 MMbtu/hr	1989	6,375 lbs/hr	None
PM-10B-P	PM-10B-S	Forge Furnace F2-22, 10 MMbtu/hr	1989	6,375 lbs/hr	None
PM-11-P	PM-11-S	Forge Furnace F3, 57 MMbtu/hr	<1970	6,375 lbs/hr	None
PM-12A-P	PM-12A-S	Ingot Furnace F4-41, 12.0 MMbtu/hr	1992	5,670 lbs/hr	None
PM-12B-P	PM-12B-S	Ingot Furnace F4-42, 12.0 MMbtu/hr	1992	5,670 lbs/hr	None
PM-13-P	PM-13-S	Ingot Furnace F-5, 42 MMbtu/hr	<1970	12,000 lbs/hr	None
PM-14-P	PM-14-S	Ingot Furnace F-6, 75.0 MMbtu/hr	<1970	9,000 lbs/hr	None
PM-15-P	PM-15-S	Ingot Furnace F-7, 75.0 MMbtu/hr	<1970	9,000 lbs/hr	None
PM-16-P	PM-16-S	Ingot Furnace F-8, 36.0 MMbtu/hr	<1970	12,000 lbs/hr	None
PM-17A-P	PM-17A-S	Ingot Furnace F9-91, 12.0 MMbtu/hr	1992	5,670 lbs/hr	None

Emission Unit ID[1]	Emission Point ID[1]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device[1]
PM-17B-P	PM-17B-S	Ingot Furnace F9-92, 12.0 MMbtu/hr	1992	5,670 lbs/hr	None
PM-18-P	PM-18-S	#1 Carbottom Furnace, 18 MMbtu/hr	<1970	18 MMbtu/hr	None
PM-19-P	PM-19-S	#3 Carbottom Furnace, 18 MMbtu/hr	<1970	18 MMbtu/hr	None
PM-20-P	PM-20-S	Plate Building Plasma Torch Thermal Dynamics Corp. PAK 10XR	1989	5,000 lbs/hr	Baghouse PM-20-C
PM-23-P	PM-23-S	Plate Anneal Furnace	1995	26 MMBtu/hr	None
PM-28-P	PM-28-S	Forge Furnace F-101, 15 MMbtu/hr	1998	13,000 lbs/hr	None
PM-29-P	PM-29-S	Forge Furnace F-102, 15 MMbtu/hr	1998	13,000 lbs/hr	None
Strip Mill					
SM-1-P	SM-1-S	CAP Line Pickling	1967	12000 lbs/hr	Mist Elim. SM-1-C
SM-2-P	SM-2-S	CAP Shot Blaster	1967	12,000 lbs/hr	Wet Scrub SM-2-C
SM-3-P	SM-3-S	MKW Mill	1967	7,600 lbs/hr	Mist Elim. SM-3-C
SM-4-P	SM-4-S	United Mill	1967	7,000 lbs/hr	None
SM-5-P	SM-5-S1,2,3,4	CAP Salt Bath, 6.9 MMbtu/hr	1969	12,000 lbs/hr	None
SM-6-P	SM-6-S	CAP Preheat Furnace, 20.0 MMbtu/hr	1967	12,000 lbs/hr	None
SM-7-P	SM-7-S	CAP Equalize Furnace, 16.5 MMbtu/hr	1967	12,000 lbs/hr	None
SM-10-P	SM-10-S	#2 CBU Grinder	1967	4,000 lbs/hr	Baghouse SM-10-C
Chipping Shop					
CS-1-P	CS-1-S	Schluter Grinder	1964	1,100 lbs/hr	Baghouse CS-1-C
CS-2-P	CS-2-S	Norton Grinder	1958	2,300 lbs/hr	Baghouse CS-2-C
CS-3-P	CS-3-S	#1 Centro-M Grinder	1966	2,100 lbs/hr	Baghouse CS-3-C
CS-4-P	CS-4-S	#2 Centro-M Grinder	1967	2,100 lbs/hr	Baghouse CS-4-C
Bar & Wire Mill					
BW-1A-P	BW-1A-S	23" Mill Furnace #1, 15 MMbtu/hr	1971	3,600 lbs/hr	None
BW-1B-P	BW-1B-S	23" Mill Furnace #2, 15 MMbtu/hr	1971	3,600 lbs/hr	None
BW-2-P	BW-2-S	Walking Beam Furnace, 30 MMbtu/hr	1971	15,000 lbs/hr	None
BW-3-P	BW-3-S, BW-12-S	Wire Looping Section #1	1970	9,000 lbs/hr	None
BW-12-P		Wire Looping Section #2	1971		
BW-10-P	BW-10-F	Scholle Saw	1971	9,000 lbs/hr	Baghouse BW-10-C
BW-11-P	BW-11-F	Abrasive Cut-off Machine	1971	9,000 lbs/hr	Baghouse BW-11-C

Emission Point ID[1]	Emission Unit ID[1]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device[1]
Vacuum Induction Melting					
VM-2-P	VM-2-S	VIM Mold Preheat, 6 MM btu/hr	1984	6 MMbtu/hr	None
B-4-P	B-4-S	VIM Boiler, 26 MM btu/hr	1984	26 MMbtu/hr	None
VM-5-P	VM-5-S	Tundish Drying Oven, 1.5 MM btu/hr	1998	1.5 MM btu/hr	None
Machine Shop					
MA-4-P	MA-4-S	Salem Tip-up Furnace	1993	31,500	None
MA-5-P	MA-5-S	O,Brien and Gere 50' Tip-up furnace	2015	15.2 MM but/hr	None
N/A	N/A	Cold Solvent Degreasers	<1993	Various	None
Cold Draw					
CD-1-P, CD-2-P	CD-1-S, CD-2-S	West Pickle Tanks 12-15	1958	31,500 gallons	None
CD-3-P, CD-4-P	CD-3-S, CD-4-S	West Pickle Tanks 9-11	1958	19,665 gallons	None
CD-5-P, CD-6-P	CD-5-S, CD-6-S	West Pickle Tank 8 & 9 (1/2 of tank 9 vents to CD-8S, CD-9S)	1958	31,000 gallons	None
CD-7-P, CD-8-P	CD-7-S, CD-8-S	West Pickle Tank #7	1958	8,000 gallons	None
CD-9-P, CD-10-P	CD-9-S, CD-10-S	West Pickle Tank # 5	1958	8,650 gallons	None
CD-11-P, CD-12-P	CD-11-S, CD-12-S	West Pickle Tank # 3	1958	11,000 gallons	None
CD-13-P, CD-14-P	CD-13-S, CD-14-S	East Pickle House; Tanks 51, 52, 53, 55, 56, 57, 58, and 59	1960	73,000 gallons	None
CD-17-P	CD-17-S	East Cutters (3 saws)	1960	550 lbs/hr	Baghouse CD-17-C
CD-23-P	CD-23-S	West Cutters (3 saws)	1966	720 lbs/hr	Baghouse CD-23-C
CD-31-P	Vent to indoor Air	Grind Building Saw	1950	917 lbs/hr	None
CD-32-P	CD-32-S	West Pickle Salt Bath, 7.2 MM btu/hr	1998	7.2 MM btu/hr	None
CD-36-P	CD-36-S	Hard Chrome Plating; two chrome plating tanks, one etch tank, and one strip tank	1950	85 lbs/hr	Scrubber CD-36-C
CD-38-P	CD-38-S	West Pickle Tank #11	1958	12,000 gallons	Scrubber CD-38-C
CD-39-P	CD-39-S	Rod Cell Saw	1966	1,000 gallons	None
CD-40-P	CD-40-S	Centro-Metalcut Type CAC 1220 Abrasive Saw	2010	5,708 gallons	Baghouse/Cyclone CD-40-C
Carpenter Shop					
CA-1-P CA-2-P	CA-1-S CA-2-S	Woodcutting Operations	1958	3,000 lbs/hr	None

Emission Point ID[1]	Emission Unit ID[1]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device[1]
Service Center					
SC-1-P	SC-1-D	Wood Saw	<1970	1000 lbs/hr	None
SC-2-P	SC-2S	Finish Saw	1970	1000 lbs/hr	Scrubber SC-2-C
Revert Processing Center					
TP-1P	TP-1-P	Tumble Blaster	2002	15,000 lbs/hr	Baghouse TP-10-C
TP-3P	TP-3-P	Plasma Cutter	2002	5,000 lbs/hr	None
TP-4P	TP-4-P	Arc Cutter	2002	15,000 lbs/hr	None
TP-5P	TP-5-P	Arc Cutter w/ additional booth	2006	15,000 lbs/hr	None
TP-6P	TP-6-P	Cabinet Blaster	2002	15,000 lbs/hr	Baghouse TP-10-C
Scrap Metal Recycling					
TP-2-P	TP-2-S	Plasma Cutter	2011	5,000lbs/hr	None
TP-7A-P	TP-7A-S	Rotary Borings Kiln 1	2011	8,000lbs/hr	Cyclone TP-7A-1C, Thermal Oxidizer TP-7A-2C, Baghouse TP-7A-3C
TP-8A-P	TP-8A-S	Rotary Borings Kiln 2	2011	8,000lbs/hr	Cyclone TP-8A-1C, Thermal Oxidizer TP-8A-2C, Baghouse TP-8A-3C
TP-7B-P	TP-7B-S	Rotary Kiln 1 Burners	2011	2.0MM Btu/hr	None
TP-8B-P	TP-8B-S	Rotary Kiln 2 Burners	2011	2.0MM Btu/hr	None
TP-9-P	TP-9-S	Crusher	2011	7,040lbs/hr 8,975 tons/yr	ESP TP-9-C
TP-10-P	TP-10-S	Shot/ Tumble Blaster	2015	15,000lbs/yr	Baghouse TP-10-C
TP-11-P	TP-11-S	Wash Water Burner	2011	0.83MM Btu/hr	None
TP-12-P	TP-12-S	Rinse Water Burner	2011	0.44 MM Btu/hr	None
TP-19-P	TP-19-S	Viking Belt Blaster	2015	600 lbs	Internal Baghouse

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E

Emission Unit Forms

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
B-1-P	Main Boiler	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located behind the refinery, used to produce steam for entire facility.

Manufacturer:	**Model number:**	**Serial number:**
Babcock & Wilcox		

Construction date:	**Installation date:**	**Modification date(s):**
1952		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
tons/hr	tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 95,238 SCFH	**Type and Btu/hr rating of burners:** 100,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	50,057
Carbon Monoxide (CO)	--	35.0
Nitrogen Oxides (NO_X)	--	42.0
Lead (Pb)	--	2.1E-04
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	3.20
Total Particulate Matter (TSP)	--	3.20
Sulfur Dioxide (SO_2)	--	0.25
Volatile Organic Compounds (VOC)	--	2.30
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	1.0E-05
3-Methylchloranthrene	--	7.5E-07
7,12-Dimethylbenz(a)anthracene	--	6.7E-06
Acenaphthene	--	7.5E-07
Acenaphthylene	--	7.5E-07
Anthracene	--	1.0E-06
Benzene	--	8.8E-04
Benzo(a)anthracene	--	7.5E-07
Benzo(a)pyrene	--	5.0E-07
Benzo(b)fluoranthene	--	7.5E-07
Benzo(g,h,i)perylene	--	5.0E-07
Benzo(k)fluoranthene	--	7.5E-07
Chrysene	--	7.5E-07
Dibenzo(a,h)anthracene	--	5.0E-07
Dichlorobenzene	--	5.0E-04
Fluoranthene	--	1.3E-06
Fluorene	--	1.2E-06
Formaldehyde	--	0.03
Hexane	--	0.75
Indenol(1,2,3,c,d)pyrene	--	7.5E-07
Naphthalene	--	2.5E-04

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Phenanthrene	--	7.1E-06
Pyrene	--	2.1E-06
Toluene	--	1.4E-03
Arsenic	--	8.3E-05
Beryllium	--	5.0E-06
Cadmium	--	4.6E-04
Chromium	--	5.8E-04
Cobalt	--	3.5E-05
Manganese	--	1.6E-04
Mercury	--	1.1E-04
Nickel	--	8.8E-04
Selenium	--	1.0E-05
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.]

4.1.2. No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the product of 0.09 and the total design heat input in million B.T.U.'s per hour: 9.54 pounds per hour for B-1-P and B-4-P.
[45CSR§2-4.1.b.]

4.1.3. Subject to the provisions of 45CSR2, allowable emission rates for individual stacks shall be determined by the owner and/or operator and registered with the Director at the request of, and on forms provided by, the Director. Such rates shall be subject to review and approval by the Director.
[45CSR§2-4.2.]

4.1.5. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.
[45CSR§2-9.2.]

4.1.6. No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour: 339.2 pounds per hour for B-1-P and B-4-P.
[45CSR§10-3.3.f.]

4.1.7. No owner or operator subject to the provisions of 45CSR10 shall build, erect, install, modify or use any article, machine, equipment or process, the use of which purposely conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[45CSR§10-11.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

4.2.1. The Main boiler, V.I.M. boiler, CAP Salt Bath and West Pickle Salt Bath shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

4.2.2. Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a

continuous twenty-four (24) hour averaging time. The permittee shall not allow emissions to exceed the weight emissions standards for sulfur dioxide as set forth in 45CSR10, except during one (1) continuous twenty-four (24) hour period in each calendar month and during this one (1) continuous twenty-four hour period said owner and/or operator shall not allow emissions to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day. [45CSR§10-3.8.]

4.4.1. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
[45CSR§2-8.3.c.]

4.5.1. The permittee shall submit a periodic exception report to the Director, in a manner and at a frequency to be established by the Director. Such exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan, and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.
[45CSR§2-8.3.b]

4.5.2. The permittee shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity as provided in one of the following:
a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
2. Excess opacity does not exceed 40%.
b. The permittee shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in Section 4.5.2.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
1. A detailed explanation of the factors involved or causes of the malfunction;
2. The date and time of duration (with starting and ending times) of the period of excess emissions;
3. An estimate of the mass of excess emissions discharged during the malfunction period;
4. The maximum opacity measured or observed during the malfunction;
5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.
[45CSR§2-9.3.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-4-P	Grit Blaster (Plate Cleaning Machine)	Baghouse PM-4-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Primary Mill, used to surface clean large plate product.

Manufacturer:	**Model number:**	**Serial number:**
Pangborn		
Construction date:	**Installation date:**	**Modification date(s):**
< 1970		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.95 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.95 tons/hr	17,802 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	1.20
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.15
Cobalt	--	1.2E-04
Copper	--	5.0E-03
Manganese	--	4.4E-03
Nickel	--	0.34
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Plate Cleaning Machine	PM-4-P	2.99

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
MS-1-D	#4 Electric Arc Furnace (EAF)	Baghouses MS-1-C1 & MS-1-C2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This unit is located in the Refinery Melt Shop. The unit is used on the melting of non-ferrous nickel alloys.

Manufacturer:	**Model number:**	**Serial number:**
Lectromag		

Construction date:	**Installation date:**	**Modification date(s):**
1966		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
17.5 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
17.5 tons/hr	153,300 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	2.80
Total Particulate Matter (TSP)	--	2.80
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.09
Cobalt	--	2.5E-03
Copper	--	0.08
Lead	--	1.2E-03
Manganese	--	0.03
Mercury	--	4.3E-05
Nickel	--	0.41
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Bag-House Dust Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
#4 Electric Arc Furnace	MS-1D	11.0

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

6.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

6.2.2. The permittee shall demonstrate compliance with the sulfur dioxide emission limit in Section 6.1.3. for the Argon Oxygen Reactor (MS-1A) and the #4 and #5 Electric Arc Furnaces (MS-1B, MS-1D) by monitoring in accordance with an approved monitoring plan. The approved monitoring plan requires the permittee to identify and

record the highest sulfur containing batch/heat/melt that is charged in to the electric arc furnaces on a monthly basis. The sulfur will be measured in total percent sulfur by weight, then converted to a maximum monthly concentration of sulfur dioxide emitted by the dust collector.
[45CSR§30-5.1.c.]

6.4.2. In accordance with the approved monitoring plan, the permittee shall keep monthly records of the Highest Monthly Heat Sulfur Percentage and Equivalent maximum monthly SO2 emissions from the baghouse in parts per million for the Argon Oxygen Reactor (MS-1A) and the #4 and #5 Electric Arc Furnaces (MS-1B, MS-1D) on the form submitted in the approved monitoring plan.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
MS-1-B	#5 Electric Arc Furnace (EAF)	Baghouses MS-1-C1 & MS-1-C2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This unit is located in the Refinery Melt Shop. The unit is used on the melting of non-ferrous nickel alloys.

Manufacturer:	**Model number:**	**Serial number:**
Lectromag		
Construction date:	**Installation date:**	**Modification date(s):**
1971		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
17.5 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
17.5 tons/hr	153,300 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already Included in MS-1D		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already Included in MS-1D		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Dust chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
#5 Electric Arc Furnace	MS-1B	11.0

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

6.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

6.2.2. The permittee shall demonstrate compliance with the sulfur dioxide emission limit in Section 6.1.3. for the

Argon Oxygen Reactor (MS-1A) and the #4 and #5 Electric Arc Furnaces (MS-1B, MS-1D) by monitoring in accordance with an approved monitoring plan. The approved monitoring plan requires the permittee to identify and record the highest sulfur containing batch/heat/melt that is charged in to the electric arc furnaces on a monthly basis. The sulfur will be measured in total percent sulfur by weight, then converted to a maximum monthly concentration of sulfur dioxide emitted by the dust collector.
[45CSR§30-5.1.c.]

6.4.2. In accordance with the approved monitoring plan, the permittee shall keep monthly records of the Highest Monthly Heat Sulfur Percentage and Equivalent maximum monthly SO2 emissions from the baghouse in parts per million for the Argon Oxygen Reactor (MS-1A) and the #4 and #5 Electric Arc Furnaces (MS-1B, MS-1D) on the form submitted in the approved monitoring plan.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
MS-1-A	Argon Oxygen Reactor (AOD)	Baghouses MS-1-C1 & MS-1-C2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This unit is located in the Refinery Melt Shop. The unit is used to introduce oxygen and argon to a melted alloy heat of metal to improve the quality.

Manufacturer:	**Model number:**	**Serial number:**
Pecor		
Construction date:	**Installation date:**	**Modification date(s):**
1971		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
17.5 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
17.5 tons/hr	153300 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already Included in MS-1D		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already Included in MS-1D		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Furnace dust chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Argon Oxygen Reactor	MS-1A	13.0

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

6.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

6.2.2. The permittee shall demonstrate compliance with the sulfur dioxide emission limit in Section 6.1.3. for the Argon Oxygen Reactor (MS-1A) and the #4 and #5 Electric Arc Furnaces (MS-1B, MS-1D) by monitoring in accordance with an approved monitoring plan. The approved monitoring plan requires the permittee to identify and record the highest sulfur containing batch/heat/melt that is charged in to the electric arc furnaces on a monthly basis. The sulfur will be measured in total percent sulfur by weight, then converted to a maximum monthly concentration

of sulfur dioxide emitted by the dust collector.
[45CSR§30-5.1.c.]

6.4.2. In accordance with the approved monitoring plan, the permittee shall keep monthly records of the Highest Monthly Heat Sulfur Percentage and Equivalent maximum monthly SO2 emissions from the baghouse in parts per million for the Argon Oxygen Reactor (MS-1A) and the #4 and #5 Electric Arc Furnaces (MS-1B, MS-1D) on the form submitted in the approved monitoring plan.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
MS-1E-P	Wire Feeder	MS-1-C2, MS-1-C1

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Melt Shop, used for adding raw wire materials into the ladle.

Manufacturer:	**Model number:**	**Serial number:**
PC Campana		
Construction date:	**Installation date:**	**Modification date(s):**
2005		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
35 Tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
35 Tons/hr	306,600 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already Included in MS-1D		

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already Included in MS-1D		

Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

6.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
MS-2-P	Powder Torch	Baghouse MS-2-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This unit is located on the north side of the Refinery Melt Shop. The powder torch is used in cutting scrap metal into smaller more manageable pieces that can be placed back into the furnaces.

Manufacturer:	**Model number:**	**Serial number:**
Lindle		
Construction date:	**Installation date:**	**Modification date(s):**
1962		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
35 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
35 tons/hr	306,600 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.03
Total Particulate Matter (TSP)	--	0.03
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	1.0E-03
Cobalt	--	2.8E-05
Copper	--	8.5E-04
Manganese	--	3.7E-04
Nickel	--	4.5E-03
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Bag-House Dust Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Powder Torch	MS-2	5.0

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
MS-9-P	Lime Storage Silo	Baghouse MS-9-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This process group consists of two lime storage bins located at the melt shop. The lime storage bin is the conveying method for pebble lime that is utilized by the melt shop as a raw material in alloy production. The lime bin has a control device to capture lime emissions during bin loading operations. The baghouse dust collector is mounted in the roof of the storage bin.

Manufacturer:	**Model number:**	**Serial number:**
Unknown		

Construction date:	**Installation date:**	**Modification date(s):**
1975	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

15 Tons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	5,979 Tons/yr	7/24/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.10
Total Particulate Matter (TSP)	--	0.10
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Reg. 7 Sections 3.1 and 3.2 -
The emission methods utilized to determine actual
actual emission rates were as follows:

1. 99.9% efficiency baghouse -
   manufacturers data

Emission rate limits based on average pound per hour process rates (and duplicate sources where applicable) were calculated and compared to the estimated emissions of each process.

Reg.7. Actual Emissions & Allowable Emission Rates
Pounds per Hour

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

10.1.1. No person shall cause, suffer, allow or permit visible emissions from any storage structure associated with any manufacturing process that pursuant to 45CSR§7-5.1. is required to have a full enclosure and be equipped with a particulate matter control device.
[45CSR§7-3.7.]

10.1.2. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1.]

10.1.3. In accordance with the information filed in Permit Application R13-0137, and any amendments or revisions thereto, the Lime Storage Silos shall be equipped with a baghouse dust collector.
[45CSR13 - R13-0137]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

10.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

10.4.1. The permittee shall maintain the design information on the baghouse at the facility.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-1 & 2-P	#1 Primary Rolling Mill	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This unit is located in the Primary Mill Department. The equipment is used for the rolling of alloy into plates.

Manufacturer:	**Model number:**	**Serial number:**
Mesta		
Construction date:	**Installation date:**	**Modification date(s):**
1964		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
50 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
50 tons/hr	438,000 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	17.0
Total Particulate Matter (TSP)	--	17.0
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	1.20
Cobalt	--	0
Copper	--	0.31
Manganese	--	0.19
Nickel	--	6.80
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emission Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
#1 Primary Rolling Mill	PM-1&2P	24.0

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-3-P	Plasma Cutting Torch	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This unit is located in the Primary Mill Department. The equipment is used for the cutting of alloy slabs.

Manufacturer:	**Model number:**	**Serial number:**
Thermal Dynamics		
Construction date:	**Installation date:**	**Modification date(s):**
1966		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.5 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.5 tons/hr	13,140 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	2.80
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.25
Cobalt	--	6.7E-03
Copper	--	0.06
Manganese	--	0.01
Nickel	--	1.10
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Plasma Torch	PM-3-P	3.0

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-5-P	Southeast Grinder	Baghouse PM-5-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Primary Mill Plate Building, used to surface grind cracks on large alloys ingots.

Manufacturer:	**Model number:**	**Serial number:**
Midwest		
Construction date:	**Installation date:**	**Modification date(s):**
1980		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 tons/hr	35,040 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	2.30
Total Particulate Matter (TSP)	--	2.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.41
Cobalt	--	0.02
Copper	--	0.05
Manganese	--	0.01
Nickel	--	0.99
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Southeast Grinder	PM-5-P	2.99

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X__ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-6-P	Southwest Grinder	Baghouse PM-6 & 25-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Primary Mill Plate Building, used to surface grind cracks on large alloys ingots.

Manufacturer:	**Model number:**	**Serial number:**
Centro Maskin		
Construction date:	**Installation date:**	**Modification date(s):**
1974		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 tons/hr	35,040 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	2.3
Total Particulate Matter (TSP)	--	2.3
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.41
Cobalt	--	0.02
Copper	--	0.05
Manganese	--	0.01
Nickel	--	0.99
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Southwest Grinder	PM-6-P	2.99

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-25-P	Southcentral Grinder	Baghouse PM-6 & 25-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Primary Mill Plate Building, used to surface grind cracks on large alloys ingots.

Manufacturer:	**Model number:**	**Serial number:**
Midwest		
Construction date:	**Installation date:**	**Modification date(s):**
1966		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 tons/hr	35,040 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	2.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.41
Cobalt	--	0.02
Copper	--	0.05
Manganese	--	0.01
Nickel	--	0.99
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Southcentral Grinder	PM-25-P	2.99

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-7-P	Northeast Grinder	Baghouse PM-7-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Primary Mill Plate Building, used to surface grind cracks on large alloys ingots.

Manufacturer:	**Model number:**	**Serial number:**
Centro Maskin		
Construction date:	**Installation date:**	**Modification date(s):**
1965		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 tons/hr	35,040 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	2.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.41
Cobalt	--	0.02
Copper	--	0.05
Manganese	--	0.01
Nickel	--	0.99
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Northeast Grinder	PM-7-P	2.99

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-26-P	Northcentral Grinder	Baghouse PM-26-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Primary Mill Plate Building, used to surface grind cracks on large alloys ingots.

Manufacturer:	**Model number:**	**Serial number:**
Beardsley piper9		
Construction date:	**Installation date:**	**Modification date(s):**
1980		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 tons/hr	35,040 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	2.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.41
Cobalt	--	0.02
Copper	--	0.05
Manganese	--	0.01
Nickel	--	0.99
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Northcentral Grinder	PM-26-P	2.99

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-8-P	Northwest Grinder	Baghouse PM-8-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Primary Mill Plate Building, used to surface grind cracks on large alloys ingots.

Manufacturer:	**Model number:**	**Serial number:**
Tysamen		
Construction date:	**Installation date:**	**Modification date(s):**
1966		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 tons/hr	35,040 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	2.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.41
Cobalt	--	0.02
Copper	--	0.05
Manganese	--	0.01
Nickel	--	0.99
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Northwest Grinder	PM-8-P	2.99

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-10A-P PM-10B-P	F-2 Forge Furnace 21 F-2 Forge Furnace 22	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating (forging) furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air through a dedicated stack. The furnace is used for the heating of alloy ingots to forging temperatures prior to actual forging operations.

Manufacturer:	**Model number:**	**Serial number:**
Olsen		

Construction date:	**Installation date:**	**Modification date(s):**
10/1988		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
3.1875 tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
3.1875 tons/hr	27,922.5 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 9,524 SCFH	**Type and Btu/hr rating of burners:** 10,000,000 each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	245,048
Carbon Monoxide (CO)	--	172
Nitrogen Oxides (NO_X)	--	204
Lead (Pb)	--	1.0E-03
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	16.0
Total Particulate Matter (TSP)	--	16.0
Sulfur Dioxide (SO_2)	--	1.20
Volatile Organic Compounds (VOC)	--	11.0
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	4.9E-05
3-Methylchloranthrene	--	3.7E-06
7,12-Dimethylbenz(a)anthracene	--	3.3E-05
Acenaphthene	--	3.7E-06
Acenaphthylene	--	3.7E-06
Anthracene	--	4.9E-06
Benzene	--	4.3E-03
Benzo(a)anthracene	--	3.7E-06
Benzo(a)pyrene	--	2.5E-06
Benzo(b)fluoranthene	--	3.7E-06
Benzo(g,h,i)perylene	--	2.5E-06
Benzo(k)fluoranthene	--	3.7E-06
Chrysene	--	3.7E-06
Dibenzo(a,h)anthracene	--	2.5E-06
Dichlorobenzene	--	2.5E-03
Fluoranthene	--	6.1E-06
Fluorene	--	5.7E-06
Formaldehyde	--	0.15
Hexane	--	3.7
Indenol(1,2,3,c,d)pyrene	--	3.7E-06

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	1.2E-03
Pyrene	--	1.0E-05
Toluene	--	6.9E-03
Arsenic	--	4.1E-04
Beryllium	--	2.5E-05
Cadmium	--	2.2E-03
Chromium	--	2.9E-03
Cobalt	--	1.7E-04
Manganese	--	7.8E-04
Mercury	--	5.3E-04
Nickel	--	4.3E-03
Selenium	--	4.9E-05
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-11-P	F-3 Forge Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating (forging) furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air through a dedicated stack. The furnace is used for the heating of alloy ingots to forging temperatures prior to actual forging operations.

Manufacturer:	**Model number:**	**Serial number:**
Salem		
Construction date:	**Installation date:**	**Modification date(s):**
<1970		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
3.1875 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
3.1875 tons/hr	27,922.5 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel?	**If yes, is it?**
_X_ Yes ___ No	___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**
54,286 SCFH	57,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Forge Furnace F3	PM-11-P	6.38

[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-12A-P PM-12B-P	F-4 Ingot Furnace 41 F-4 Ingot Furnace 42	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air. The furnace is used for the heating of alloy ingots.

Manufacturer:	**Model number:**	**Serial number:**
Salem		

Construction date:	**Installation date:**	**Modification date(s):**
A- 7/1991 B- 3/1991		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2.835 tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2.835 tons/hr	24,834.6 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel?	**If yes, is it?**
_X_ Yes ___ No	___ Indirect Fired _X_ Direct Fired

Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**
11,429 SCFH	12,000,000 each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Already included in PM-10A-P & PM10B-P			
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Already included in PM-10A-P & PM10B-P			
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-13-P	F-5 Ingot Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air. The furnace is used for the heating of alloy ingots.

Manufacturer:	**Model number:**	**Serial number:**
Salem		
Construction date:	**Installation date:**	**Modification date(s):**
7/1986		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6 tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6 tons/hr	52,560 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 40,000 SCFH	**Type and Btu/hr rating of burners:** 42,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Already included in PM-10A-P & PM10B-P			
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Already included in PM-10A-P & PM10B-P			
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Ingot Furnace F-5	PM-13-P	11.20

[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-14-P PM-15-P	F-6 Ingot Furnace F-7 Ingot Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air. The furnace is used for the heating of alloy ingots.

Manufacturer:	**Model number:**	**Serial number:**
Flinn & Dreffein		

Construction date:	**Installation date:**	**Modification date(s):**
12/1970		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4.5 tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4.5 tons/hr	39,420 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 71,429 SCFH	**Type and Btu/hr rating of burners:** 75,000,000 each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Ingot Furnace F-6	PM-14-P	9.00
Ingot Furnace F-7	PM-15-P	9.00

[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-16-P	F-8 Ingot Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air. The furnace is used for the heating of alloy ingots.

Manufacturer:	**Model number:**	**Serial number:**
Flinn & Dreffein		
Construction date:	**Installation date:**	**Modification date(s):**
<1970		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6 tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6 tons/hr	52,560 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel?	**If yes, is it?**
_X_ Yes ___ No	___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 34,286 SCFH	**Type and Btu/hr rating of burners:** 36,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-17A-P PM-17B-P	F-9 Ingot Furnace 91 F-9 Ingot Furnace 92	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air. The furnace is used for the heating of alloy ingots.

Manufacturer:	**Model number:**	**Serial number:**
Salem		
Construction date:	**Installation date:**	**Modification date(s):**
1992		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2.835 tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2.835 tons/hr	24,834.6 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel?	**If yes, is it?**
_X_ Yes ___ No	___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**
11,429 SCFH	12,000,000 each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-18-P PM-19-P	#1 Carbottom Furnace #3 Carbottom Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one heating furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air. The furnace is used for the heating of alloy plate and coil products.

Manufacturer:	**Model number:**	**Serial number:**
Modern Industrial Heating		

Construction date:	**Installation date:**	**Modification date(s):**
#1 3/1980 #3 2/1986		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
tons/hr	tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 17,143 SCFH	**Type and Btu/hr rating of burners:** 18,000,000 each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM-10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** Baghouse
PM-20-P	PM Plate Plasma Torch	Baghouse PM-20-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The plasma torch is a gas cutting torch that is utilized for squaring up the ends of plate alloy stock before it is processed through the stretch leveller.

Manufacturer:	**Model number:**	**Serial number:**
Thermal Dynamics Corp.	PAK 10XR	

Construction date:	**Installation date:**	**Modification date(s):**
10/01/1989	10/15/1989	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2.5 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2.5 tons/hr	21,900 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.11
Total Particulate Matter (TSP)	--	0.11
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	9.7E-03
Cobalt	--	2.6E-04
Copper	--	2.2E-03
Manganese	--	5.4E-04
Nickel	--	0.04
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions were estimated by using stack test data from the other plasma torch in primary mill.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

6.1.4. In accordance with the permit application and its amendments, particulate emissions to the atmosphere from the stack (PM-20-S) venting the baghouse used to control plasma cutting torch (PM-20-P) shall not exceed 0.025 lb/hr. Compliance with the PM limit demonstrates compliance with the PM emission limit from 45CSR§7-4.1.
[45CSR13 - R13-1165 and 45CSR§7-4.1.]

6.1.5. In accordance with the permit application and its amendments, plasma torch (PM-20-P) shall be operated no more than 2,820 hours per calendar year.
[45CSR13 - R13-1165]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

6.4.1. The permittee shall maintain monthly records of the operating hours of the plasma torch (PM-20-P) as required in Section 6.1.5.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-23-P	PM Plate Anneal Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one plate anneal furnace located in the primary mill department. The furnace is natural gas fired and vents combustion emissions to indoor air (no stack). The furnace is used for the annealing of alloy products.

Manufacturer:	**Model number:**	**Serial number:**
Salem Furnace Company		

Construction date:	**Installation date:**	**Modification date(s):**
09/07/1993	09/07/1995	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6 Tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	52,560 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 24762 SCFH	**Type and Btu/hr rating of burners:** 26,000,000 Btu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1,050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	13,015
Carbon Monoxide (CO)	--	9.1
Nitrogen Oxides (NO_X)	--	17.0
Lead (Pb)	--	5.4E-05
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.82
Total Particulate Matter (TSP)	--	0.82
Sulfur Dioxide (SO_2)	--	0.07
Volatile Organic Compounds (VOC)	--	0.60
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	2.6E-06
3-Methylchloranthrene	--	2.0E-07
7,12-Dimethylbenz(a)anthracene	--	1.7E-06
Acenaphthene	--	2.0E-07
Acenaphthylene	--	2.0E-07
Anthracene	--	2.6E-06
Benzene	--	2.3E-04
Benzo(a)anthracene	--	2.0E-07
Benzo(a)pyrene	--	1.3E-07
Benzo(b)fluoranthene	--	2.0E-07
Benzo(g,h,i)perylene	--	1.3E-07
Benzo(k)fluoranthene	--	2.0E-07
Chrysene	--	2.0E-07
Dibenzo(a,h)anthracene	--	1.3E-07
Dichlorobenzene	--	1.3E-04
Fluoranthene	--	3.3E-07
Fluorene	--	3.0E-07
Formaldehyde	--	8.1E-03
Hexane	--	0.20
Indenol(1,2,3,c,d)pyrene	--	2.0E-07

Hazardous Air Pollutants	Potential Emissions	
	PPH	PPH
Naphthalene	--	6.6E-05
Pyrene	--	5.4E-07
Toluene	--	3.7E-04
Arsenic	--	2.2E-05
Beryllium	--	1.3E-06
Cadmium	--	1.2E-04
Chromium	--	1.5E-04
Cobalt	--	9.1E-06
Manganese	--	4.1E-05
Mercury	--	2.8E-05
Nickel	--	2.3E-04
Selenium	--	2.6E-06
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

5.4.2. For purposes of tracking compliance of the Plate anneal furnace (PM-23-P) with requirements of Sections 5.1.8. and Section 5.1.9. of this permit, monthly reports shall be filed per Appendix A of Permit R13-1767. These reports shall be filed within fifteen (15) days following the end of each month and shall record monthly and year-to-date amounts of natural gas consumed and NOx emissions in tons. Such records shall be certified by the permittee or responsible official of the company to be true and accurate.
[45CSR13 - R13-1767 and 45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

5.1.7. In accordance with the permit application and its amendments, the plate anneal furnace (PM-23-P) as operated shall fire only natural gas and shall not be operated in a manner to exceed a maximum design heat input of 26.0×10^6 Btu/hr.
[45CSR13 - R13-1767]

5.1.8. In accordance with the permit application and its amendments, emissions to the atmosphere from the roof vent of the plate anneal furnace (PM-23-P) shall not exceed the following utilizing natural gas:

Particulates 0.075 lb/hr
Sulfur Dioxide 0.015 lb/hr
Nitrogen Oxide 2.5 lb/hr
Carbon Monoxide 0.875 lb/hr
Total Hydrocarbons 0.07 lb/hr

Compliance with the PM limit demonstrates compliance with the PM emission limit from 45CSR§7-4.1.
[45CSR13 - R13-1767 and 45CSR§7-4.1. (PM-23-P)]

5.1.9. In accordance with the permit application and its amendments, the plate anneal furnace (PM-23-P) shall consume no more than 25,000 ft^3/hr of natural gas.
[45CSR13 - R13-1767]

5.1.10. In accordance with the permit application and its amendments, the plate anneal furnace (PM-23-P) shall not process more than 12,000 lb/hr of alloy plate.
[45CSR13 - R13-1767]

____ Permit Shield

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
PM-28-P PM-29-P	PM Forge Furnace F-101 PM Forge Furnace F-102	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one ingot heating (forging) furnace located within the primary mill department. The furnace is natural gas fired and it vents products of combustion emissions to outside air through a dedicated stack. The furnace is used for the heating of alloy ingots to forging temperatures prior to actual forging operations.

Manufacturer:	**Model number:**	**Serial number:**
Salem Furnace Company		

Construction date:	**Installation date:**	**Modification date(s):**
01/01/1998	04/01/1998	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6.5 tons/hr each

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6.5 tons/hr	56,940 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 14,286 SCFH	**Type and Btu/hr rating of burners:** 15,000,000 each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	7,509
Carbon Monoxide (CO)	--	5.3
Nitrogen Oxides (NO_X)	--	3.1
Lead (Pb)	--	3.1E-05
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.48
Total Particulate Matter (TSP)	--	0.48
Sulfur Dioxide (SO_2)	--	0.04
Volatile Organic Compounds (VOC)	--	0.34
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	1.5E-06
3-Methylchloranthrene	--	1.1E-07
7,12-Dimethylbenz(a)anthracene	--	1.0E-06
Acenaphthene	--	1.1E-07
Acenaphthylene	--	1.1E-07
Anthracene	--	1.5E-07
Benzene	--	1.3E-04
Benzo(a)anthracene	--	1.1E-07
Benzo(a)pyrene	--	7.5E-08
Benzo(b)fluoranthene	--	1.1E-07
Benzo(g,h,i)perylene	--	7.5E-08
Benzo(k)fluoranthene	--	1.1E-07
Chrysene	--	1.1E-07
Dibenzo(a,h)anthracene	--	7.5E-08
Dichlorobenzene	--	7.5E-05
Fluoranthene	--	1.9E-07
Fluorene	--	1.8E-07
Formaldehyde	--	4.7E-03
Hexane	--	0.11
Indenol(1,2,3,c,d)pyrene	--	1.1E-07

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	3.8E-05
Pyrene	--	3.1E-07
Toluene	--	2.1E-04
Arsenic	--	1.3E-05
Beryllium	--	7.5E-07
Cadmium	--	6.9E-05
Chromium	--	8.8E-05
Cobalt	--	5.3E-06
Manganese	--	2.4E-05
Mercury	--	1.6E-05
Nickel	--	1.3E-04
Selenium	--	1.5E-06
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

5.1.11. In accordance with the permit application and its amendments, the maximum emissions to the air from the two Forge furnaces F-101 and F-102 (PM-28-P and PM-29-P) are not to exceed the following hourly and annual emission rates:

Pollutant	Maximum Emission Rate for Each Furnace		Maximum Emission Rate for Two Furnaces	
	(lb/hr)	(tons/yr)[2]	(lb/hr)	(tons/yr)
CO	2.74	9.60	5.48	19.2
NO_x	1.88	5.26	3.76	10.52
PM_{10}	1.26	4.24	2.52	8.48
SO_2	0.225	0.79	0.45	1.58
VOC's	0.1 [1]	0.35	0.2	0.7

Note:[1] Hourly emission rate based on heating value of natural gas (1,100 Btu/ft^3)
[2] Annual emissions are based on an operating schedule of 8,760 hours per year.

[45CSR13 - R13-2163, and 45CSR§7-4.1.]

5.1.12. In accordance with the permit application and its amendments, the permitted facility shall utilize natural gas as the only fuel for Forge furnaces F-101 and F-102 (PM-28-P and PM-29-P). The consumption rate of natural gas is not to exceed 13,636 ft^3/hr, or a rolling yearly total of 119.5 MM ft^3/yr.
[45CSR13 - R13-2163]

5.1.13. In accordance with the permit application and its amendments, the total maximum heat input for each of the two Forge furnaces F-101 and F102 (PM-28-P and PM-29-P) shall not exceed 15 million Btu/hr (each of the fifteen (15) low NO_x burners for each furnace not to exceed 1.25 MM Btu/hr heat input).
[45CSR13 - R13-2163]

5.1.14. In accordance with the permit application and its amendments, sulfur content of natural gas used for fuel in the Forge furnaces F-101 and F-102 (PM-28-P and PM-29-P) is not to exceed 5 parts per million (less than ½ a grain per cubic foot of natural gas).
[45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

5.4.3. For the purpose of determining compliance of the Forge furnaces F-101 and F-102 (PM-28-P and PM-29-P) with the requirements of Sections 5.1.12., 5.1.13., and 5.1.14 of this permit, the facility shall maintain monthly records using the provided sample recordkeeping forms appended to Permit R13-2163 as Attachments A and B. These records shall document monthly and rolling yearly total of natural gas consumed, hours of operation, hourly natural gas consumption rate in units of SCF/hr, and sulfur content of the natural gas in ppm. All records shall be initialed by a "Responsible Official" within fifteen (15) days after the end of the calendar month using the space provided on the record forms, and then signed by a "Responsible Official" within thirty (30) days after the end of the calendar year utilizing the Certification of Data Accuracy statement which is to be copied to the reverse side of each reporting form. This information shall be maintained on-site for a period of no less than five (5) calendar years from the date of the last entry on the form, and be made available to the Director his duly authorized representative upon request. The permittee may propose to the Director a different form of record keeping from that described.
[45CSR13-R13-2163]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-1-P	CAP Line Pickling	SM-1-C Mist Eliminator

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Continuous Anneal & Pickle (CAP) Line is a series of furnaces and pickling tanks to continuously anneal and pickle long coils of strip end to end.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1966	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6 Tons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6 Tons	52,560 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	1.4
Total Particulate Matter (TSP)	--	1.4
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric Acid (HCl)	--	0.22
Nitric Acid (HNO_3)	--	0.66
Hydrofluoric Acid (HF)	--	0.55
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data

required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-2-P	CAP Shot Blaster	Wet Scrub SM-2-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This unit is located on the CAP line in the Sheet and Strip Mill. The shot blaster is used to remove oxide from alloy sheet.

Manufacturer:	**Model number:**	**Serial number:**
Pangborn		

Construction date:	**Installation date:**	**Modification date(s):**
1967		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6 tons/hr	52,560 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	1.3
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Nickel (Ni)	--	0.14
Copper (Cu)	--	0.01
Chromium (Cr)	--	0.07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Used Shot Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
CAP Shot Blaster	SM-2-P	9.15

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-3-P	MKW Mill	Mist Eliminator SM-3-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Sheet and Strip Mill, used to cold roll alloy strip to smaller gauge.

Manufacturer:	**Model number:**	**Serial number:**
Schloeman		
Construction date:	**Installation date:**	**Modification date(s):**
1967		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
3.8 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
3.8 tons/hr	33,288 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	3.50
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Nickel (Ni)		
Copper (Cu)		
Chromium (Cr)		
Manganese (Mn)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
MKW Rolling Mill	SM-3-P	6.68

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-4-P	United Mill	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Sheet and Strip Mill, used to cold roll alloy strip to smaller gauge.

Manufacturer:	**Model number:**	**Serial number:**
United		
Construction date:	**Installation date:**	**Modification date(s):**
1967		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
3.45 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
3.45 tons/hr	30,222 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	--	4.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Nickel (Ni)		
Copper (Cu)		
Chromium (Cr)		
Manganese (Mn)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
United Rolling Mill	SM-4-P	6.04

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-5-P	CAP Line Salt Bath	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Surface treatment to remove oxides from products.

Manufacturer:	**Model number:**	**Serial number:**
Kolene		
Construction date:	**Installation date:**	**Modification date(s):**
1969		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
20 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
20 tons/hr	175,200 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 6,571 SCFH	**Type and Btu/hr rating of burners:** 6,900,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	2.4
Nitrogen Oxides (NO_X)	--	1.4
Lead (Pb)	--	1.4E-05
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.22
Total Particulate Matter (TSP)	--	0.22
Sulfur Dioxide (SO_2)	--	0.02
Volatile Organic Compounds (VOC)	--	0.16
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	6.9E-07
3-Methylchloranthrene	--	5.2E-08
7,12-Dimethylbenz(a)anthracene	--	4.6E-07
Acenaphthene	--	5.2E-08
Acenaphthylene	--	5.2E-08
Anthracene	--	6.9E-08
Benzene	--	6.0E-05
Benzo(a)anthracene	--	5.2E-08
Benzo(a)pyrene	--	3.5E-08
Benzo(b)fluoranthene	--	5.2E-08
Benzo(g,h,i)perylene	--	3.5E-08
Benzo(k)fluoranthene	--	5.2E-08
Chrysene	--	5.2E-08
Dibenzo(a,h)anthracene	--	3.5E-08
Dichlorobenzene	--	3.5E-05
Fluoranthene	--	8.6E-08
Fluorene	--	8.1E-08
Formaldehyde	--	2.2E-03
Hexane	--	0.05
Indenol(1,2,3,c,d)pyrene	--	5.2E-08
Naphthalene	--	1.8E-05

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Phenanthrene	--	4.9E-07
Pyrene	--	1.4E-07
Toluene	--	9.8E-05
Arsenic	--	5.8E-06
Beryllium	--	3.5E-07
Cadmium	--	3.2E-05
Chromium	--	4.0E-05
Cobalt	--	2.4E-06
Manganese	--	1.1E-05
Mercury	--	7.5E-06
Nickel	--	6.0E-05
Selenium	--	6.9E-07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1.]

4.1.7. No owner or operator subject to the provisions of 45CSR10 shall build, erect, install, modify or use any article, machine, equipment or process, the use of which purposely conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[45CSR§10-11.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

4.2.1. The Main boiler, V.I.M. boiler, CAP Salt Bath and West Pickle Salt Bath shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

4.2.2. Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time. The permittee shall not allow emissions to exceed the weight emissions standards for sulfur dioxide as set forth in 45CSR10, except during one (1) continuous twenty-four (24) hour period in each calendar month and during this one (1) continuous twenty-four hour period said owner and/or operator shall not allow emissions to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day.
[45CSR§10-3.8.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-6-P	CAP Preheat Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The furnace is located in the Strip Mill Department on the CAP Line and is used in the preheating process of sheet products. The emissions are vented to indoor air.

Manufacturer:	**Model number:**	**Serial number:**
Drever		
Construction date:	**Installation date:**	**Modification date(s):**
1967		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6 tons/hr	52,560 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel?	**If yes, is it?**
_X_ Yes ___ No	___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 19,048 SCFH	**Type and Btu/hr rating of burners:** 20,000,000 each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already include in PM10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already include in PM10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-7-P	CAP Equalize Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The furnace is located in the Strip Mill Department on the CAP Line and is used in the process of sheet products. The emissions are vented to indoor air.

Manufacturer:	**Model number:**	**Serial number:**
Drever		

Construction date:	**Installation date:**	**Modification date(s):**
1967		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6 tons/hr	52,560 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X_Yes ___ No	**If yes, is it?** ___ Indirect Fired __X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 15,714 SCFH	**Type and Btu/hr rating of burners:** 16,500,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already include in PM10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already include in PM10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SM-10-P	# 2 CBU Grind	SM-10-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Used to surface grind alloy strip.

Manufacturer:	**Model number:**	**Serial number:**
Hillacme		
Construction date:	**Installation date:**	**Modification date(s):**
1967		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2 tons/hr	17,520 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.01
Total Particulate Matter (TSP)	--	0.01
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	1.3E-03
Cobalt	--	4.5E-05
Copper	--	6.9E-05
Manganese	--	2.7E-05
Nickel	--	3.7E-03
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CS-1-P	Schluter Grinder	Baghouse CS-1-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Used to grind the surface of alloy cogs.

Manufacturer:	**Model number:**	**Serial number:**
Schluter		
Construction date:	**Installation date:**	**Modification date(s):**
1964		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.55 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.55 tons/hr	4,818 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.51
Total Particulate Matter (TSP)	--	0.51
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.07
Cobalt	--	3.6E-03
Copper	--	0.03
Manganese	--	2.7E-03
Nickel	--	0.27
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Schluter Grinder	CS-1-P	0.41

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CS-2-P	Norton Grinder	Baghouse CS-2-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Used to grind the surface of alloy cogs.

Manufacturer:	**Model number:**	**Serial number:**
Norton		
Construction date:	**Installation date:**	**Modification date(s):**
1958		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.15 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.15 tons/hr	10,074 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	1.10
Total Particulate Matter (TSP)	--	1.10
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.14
Cobalt	--	7.6E-03
Copper	--	0.06
Manganese	--	5.6E-03
Nickel	--	0.57
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Norton Grinder	CS-2-P	0.85

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CS-3-P	#1 Centro-M Grinder	Baghouse CS-3-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Used to grind the surface of alloy cogs.

Manufacturer:	**Model number:**	**Serial number:**
Centro Maskin		
Construction date:	**Installation date:**	**Modification date(s):**
1966		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.05 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.05 tons/hr	9,198 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.98
Total Particulate Matter (TSP)	--	0.98
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.13
Cobalt	--	6.9E-03
Copper	--	0.06
Manganese	--	5.1E-03
Nickel	--	0.52
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
#1 Centro-M Grinder	CS-3-P	0.77

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CS-4-P	#2 Centro-M Grinder	Baghouse CS-4-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Used to grind the surface of alloy cogs.

Manufacturer:	**Model number:**	**Serial number:**
Centro Maskin		
Construction date:	**Installation date:**	**Modification date(s):**
1967		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.05 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.05 tons/hr	9,198 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.98
Total Particulate Matter (TSP)	--	0.98
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.13
Cobalt	--	7.0E-03
Copper	--	0.06
Manganese	--	5.1E-03
Nickel	--	0.52
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
#2 Centro-M Grinder	CS-4-P	0.78

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
BW-1A-P	23" Mill Furnace #1	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Used in heating alloy cogs for bar and wire products.

Manufacturer:	**Model number:**	**Serial number:**
Flinn		
Construction date:	**Installation date:**	**Modification date(s):**
1969		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.8 Ton/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.8 Ton/hr	15,768 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 14,286 SCFH	**Type and Btu/hr rating of burners:** 15,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.51
Total Particulate Matter (TSP)	--	0.51
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.04
Cobalt	--	0
Copper	--	9.2E-03
Manganese	--	5.6E-03
Nickel	--	0.20
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
BW-1B-P	23" Mill Furnace #2	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Used in heating alloy cogs for bar and wire products.

Manufacturer:	**Model number:**	**Serial number:**
Flinn		

Construction date:	**Installation date:**	**Modification date(s):**
1971		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.8 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.8 tons/hr	15,768 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel?	**If yes, is it?**
_X_ Yes ___ No	___ Indirect Fired _X_ Direct Fired

Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**
14,286 SCFH	15,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in BW-1A-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in BW-1A-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
BW-2-P	Walking Beam Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Furnace located in the Bar and Wire Mill and is used for wire products.

Manufacturer:	**Model number:**	**Serial number:**
Selas		

Construction date:	**Installation date:**	**Modification date(s):**
2/1970		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
7.5 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
7.5 tons/hr	65,700 tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 26,667 SCFH	**Type and Btu/hr rating of burners:** 28,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
BW-3-P BW-12-P	Looping Section 1 Looping Section 2	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
These units are located in the Bar and Wire Department. The looping sections are used in the manufacturing of wire products.

Manufacturer:	**Model number:**	**Serial number:**
Looping Section 1 –Kocks Looping Section 2 - Morgands Hammen		

Construction date:	**Installation date:**	**Modification date(s):**
Section 1- 1970 Section 2- 1971		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4.5 Ton/hr.

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4.5 Ton/hr	39,420	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	3.60
Total Particulate Matter (TSP)	--	3.60
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.25
Cobalt	--	0
Copper	--	0.07
Manganese	--	0.04
Nickel	--	1.4
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Wire Looping Section #1	BW-3-P	3.7
Wire Looping Section #2	BW-12-P	4.1

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
BW-10-P	Scholle Saw	Baghouse BW-10-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The saw is used to cut pieces coming of the Bar and Wire Mill

Manufacturer:	**Model number:**	**Serial number:**
Scholle		

Construction date:	**Installation date:**	**Modification date(s):**
1971		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4.5 Ton/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4.5 Ton/hr	39,420	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	1.20
Total Particulate Matter (TSP)	--	1.20
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.08
Cobalt	--	0
Copper	--	0.02
Manganese	--	0.01
Nickel	--	0.46
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Scholle Saw	BW-10-P	7.1

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
BW-11-P	Abrasive Cut-Off Machine	Baghouse BW-11-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The saw is used to cut pieces coming out of the Bar and Wire Mill

Manufacturer:	**Model number:**	**Serial number:**
Tysman		
Construction date:	**Installation date:**	**Modification date(s):**
1971		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4.5 Ton/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4.5 Ton/hr	39,420	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.58
Total Particulate Matter (TSP)	--	0.58
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.04
Cobalt	--	0
Copper	--	0.01
Manganese	--	6.4E-03
Nickel	--	0.22
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

6.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Abrasive Cut-off Machine	BW-11-P	7.1

[45CSR§7-4.1.]

6.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
MA-4-P	Salem Tip-up Furnace	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of one Heat Treat furnace located in the Machine Shop department. The furnace is natural gas fired and vents combustion emissions to indoor air (no stack). The furnace is used for the heat treating (annealing) of alloy products.

Manufacturer:	**Model number:**	**Serial number:**
Salem Furnace Company		
Construction date:	**Installation date:**	**Modification date(s):**
12/01/1993		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel?	**If yes, is it?**
_X_ Yes ___ No	___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 13,771 SCFH	**Type and Btu/hr rating of burners:** 14,460,000 Btu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	2.5 ppm	0	1,050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	7,238
Carbon Monoxide (CO)	--	5.1
Nitrogen Oxides (NO_X)	--	3.0
Lead (Pb)	--	3.0E-05
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.46
Total Particulate Matter (TSP)	--	0.46
Sulfur Dioxide (SO_2)	--	0.04
Volatile Organic Compounds (VOC)	--	0.33
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	1.4E-06
3-Methylchloranthrene	--	1.1E-07
7,12-Dimethylbenz(a)anthracene	--	9.7E-07
Acenaphthene	--	1.1E-07
Acenaphthylene	--	1.1E-07
Anthracene	--	1.4E-07
Benzene	--	1.3E-04
Benzo(a)anthracene	--	1.1E-07
Benzo(a)pyrene	--	7.2E-08
Benzo(b)fluoranthene	--	1.1E-07
Benzo(g,h,i)perylene	--	7.2E-08
Benzo(k)fluoranthene	--	1.1E-07
Chrysene	--	1.1E-07
Dibenzo(a,h)anthracene	--	7.2E-08
Dichlorobenzene	--	7.2E-05
Fluoranthene	--	1.8E-07
Fluorene	--	1.7E-07
Formaldehyde	--	4.5E-03
Hexane	--	0.11
Indenol(1,2,3,c,d)pyrene	--	1.1E-07

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	3.7E-05
Phenathrene	--	1.0E-06
Pyrene	--	3.0E-07
Toluene	--	2.1E-04
Arsenic	--	1.2E-05
Beryllium	--	7.2E-07
Cadmium	--	6.6E-05
Chromium	--	8.4E-05
Cobalt	--	5.1E-06
Manganese	--	2.3E-05
Mercury	--	1.6E-05
Nickel	--	1.3E-04
Selenium	--	1.4E-06
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

5.1.4. In accordance with the permit application and its amendments, discharge from the Salem Tip-up furnace (MA-4-P) to the roof vent fans shall not exceed the following limitations:

Particulate	0.07 lb/hr
SO2	0.01 lb/hr
NOx	1.93 lb/hr
CO	0.48 lb/hr
VOC	0.04 lb/hr

Compliance with the PM limit demonstrates compliance with the PM emission limit from 45CSR§7-4.1.
[45CSR13 - R13-1646 and 45CSR§7-4.1.]

5.1.5. In accordance with the permit application and its amendments, natural gas consumption in the Salem Tip-up furnace (MA-4-P) shall not exceed 13,800 cf/hr.
[45CSR13 - R13-1646]

5.1.6. In accordance with the permit application and its amendments, the Salem Tip-up furnace (MA-4-P) shall not process more than 20,000 lb/hr of alloy rods.
[45CSR13 - R13-1646]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

5.4.1. The permittee shall maintain records showing the amount of natural gas fired monthly in the Salem Tip-up furnace (MA-4-P) as required in Section 5.1.5. Such records shall be maintained by the permittee for at least three (3) years. Monthly records shall be made available to the Director or his duly authorized representative upon request. Such records shall be certified by the permittee or responsible official of the company to be true and accurate.
[45CSR13 - R13-1646]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
MA-5-P	MA-5-P Tip up furnace	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Manufacturer:	**Model number:**	**Serial number:**
O'Brien and Gere	50'	
Construction date:	**Installation date:**	**Modification date(s):**
2015	2015	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

This emission unit consists of one Heat Treat furnace located in the Machine Shop department. The furnace is natural gas fired and vents combustion emissions to indoor air (no stack). The furnace is used for the heat treating (annealing) of alloy products.

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _x__Yes ___ No	**If yes, is it?** ___ Indirect Fired _x__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 14,476 SCFH	**Type and Btu/hr rating of burners:** 15,200,000 Btu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	2.5	0	1,050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	7,238
Carbon Monoxide (CO)	--	5.1
Nitrogen Oxides (NO_X)	--	3.0
Lead (Pb)	--	3.0E-05
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.46
Total Particulate Matter (TSP)	--	0.46
Sulfur Dioxide (SO_2)	--	0.04
Volatile Organic Compounds (VOC)	--	0.33
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	1.4E-06
3-Methylchloranthrene	--	1.1E-07
7,12-Dimethylbenz(a)anthracene	--	9.7E-07
Acenaphthene	--	1.1E-07
Acenaphthylene	--	1.1E-07
Anthracene	--	1.4E-07
Benzene	--	1.3E-04
Benzo(a)anthracene	--	1.1E-07
Benzo(a)pyrene	--	7.2E-08
Benzo(b)fluoranthene	--	1.1E-07
Benzo(g,h,i)perylene	--	7.2E-08
Benzo(k)fluoranthene	--	1.1E-07
Chrysene	--	1.1E-07
Dibenzo(a,h)anthracene	--	7.2E-08
Dichlorobenzene	--	7.2E-05
Fluoranthene	--	1.8E-07
Fluorene	--	1.7E-07
Formaldehyde	--	4.5E-03
Hexane	--	0.11
Indenol(1,2,3,c,d)pyrene	--	1.1E-07

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	3.7E-05
Phenathrene	--	1.0E-06
Pyrene	--	3.0E-07
Toluene	--	2.1E-04
Arsenic	--	1.2E-05
Beryllium	--	7.2E-07
Cadmium	--	6.6E-05
Chromium	--	8.4E-05
Cobalt	--	5.1E-06
Manganese	--	2.3E-05
Mercury	--	1.6E-05
Nickel	--	1.3E-04
Selenium	--	1.4E-06

Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

5.1.4. In accordance with the permit application and its amendments, discharge from the MA-5-P Tip-up furnace to the roof vent fans shall not exceed the following limitations:

Particulate	0.11 lb/hr
SO2	0.01 lb/hr
NOx	1.45 lb/hr
CO	1.22 lb/hr
VOC	0.08 lb/hr

Compliance with the PM limit demonstrates compliance with the PM emission limit from 45CSR§7-4.1. [45CSR13 - R13-1646 and 45CSR§7-4.1.]

5.1.5. In accordance with the permit application and its amendments, natural gas consumption in the MA-5-P Tip-up furnace shall not exceed 14,476 cf/hr.
[45CSR13 - R13-1646]

5.1.6. In accordance with the permit application and its amendments, the Tip-up furnace MA-5-P shall not process more than 30,000 lb/hr of alloy rods.
[45CSR13 - R13-1646]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all applicable requirements for this emission unit? _x__ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
VM-2-P	VIM Mold Preheat	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Vacuum Induction Melting Department, used in the preheating process of rolls. Vents to inside air.

Manufacturer:	**Model number:**	**Serial number:**
Electric Furnace		
Construction date:	**Installation date:**	**Modification date(s):**
1984		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 5,714 SCFH	**Type and Btu/hr rating of burners:** 6,000,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
B-4-P	VIM Boiler	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Vacuum Induction Melting Department used to produce steam in department.

Manufacturer:	**Model number:**	**Serial number:**
Cleverbrooks		

Construction date:	**Installation date:**	**Modification date(s):**
1984		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
tons/hr	tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 27,714 SCFH	**Type and Btu/hr rating of burners:** 29,100,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	14,566
Carbon Monoxide (CO)	--	10.0
Nitrogen Oxides (NO_X)	--	12.0
Lead (Pb)	--	6.1E-05
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.92
Total Particulate Matter (TSP)	--	0.92
Sulfur Dioxide (SO_2)	--	0.07
Volatile Organic Compounds (VOC)	--	0.67
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	2.9E-06
3-Methylchloranthrene	--	2.2E-07
7,12-Dimethylbenz(a)anthracene	--	1.9E-06
Acenaphthene	--	2.2E-07
Acenaphthylene	--	2.2E-07
Anthracene	--	2.9E-07
Benzene	--	2.5E-07
Benzo(a)anthracene	--	2.2E-07
Benzo(a)pyrene	--	1.5E-07
Benzo(b)fluoranthene	--	2.2E-07
Benzo(g,h,i)perylene	--	1.5E-07
Benzo(k)fluoranthene	--	2.2E-07
Chrysene	--	2.2E-07
Dibenzo(a,h)anthracene	--	1.5E-07
Dichlorobenzene	--	1.5E-04
Fluoranthene	--	3.6E-07
Fluorene	--	3.4E-07
Formaldehyde	--	9.1E-03
Hexane	--	0.22
Indenol(1,2,3,c,d)pyrene	--	2.2E-07
Naphthalene	--	7.4E-05

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Phenanthrene	--	2.1E-06
Pyrene	--	6.1E-07
Toluene	--	4.1E-04
Arsenic	--	2.4E-05
Beryllium	--	1.5E-06
Cadmium	--	1.3E-04
Chromium	--	1.7E-04
Cobalt	--	1.0E-05
Manganese	--	4.6E-05
Mercury	--	3.2E-05
Nickel	--	2.5E-04
Selenium	--	2.9E-06
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.]

4.1.2. No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the product of 0.09 and the total design heat input in million B.T.U.'s per hour: 9.54 pounds per hour for B-1-P and B-4-P.
[45CSR§2-4.1.b.]

4.1.3. Subject to the provisions of 45CSR2, allowable emission rates for individual stacks shall be determined by the owner and/or operator and registered with the Director at the request of, and on forms provided by, the Director. Such rates shall be subject to review and approval by the Director.
[45CSR§2-4.2.]

4.1.4. The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45CSR§2-4.4.]

4.1.5. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.
[45CSR§2-9.2.]

4.1.6. No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour: 339.2 pounds per hour for B-1-P and B-4-P.
[45CSR§10-3.3.f.]

4.1.7. No owner or operator subject to the provisions of 45CSR10 shall build, erect, install, modify or use any article, machine, equipment or process, the use of which purposely conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[45CSR§10-11.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

4.2.1. The Main boiler, V.I.M. boiler, CAP Salt Bath and West Pickle Salt Bath shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

4.2.2. Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time. The permittee shall not allow emissions to exceed the weight emissions standards for sulfur dioxide as set forth in 45CSR10, except during one (1) continuous twenty-four (24) hour period in each calendar month and during this one (1) continuous twenty-four hour period said owner and/or operator shall not allow emissions to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day.
[45CSR§10-3.8.]

4.4.1. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
[45CSR§2-8.3.c.]

4.5.1. The permittee shall submit a periodic exception report to the Director, in a manner and at a frequency to be established by the Director. Such exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan, and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.
[45CSR§2-8.3.b]

4.5.2. The permittee shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity as provided in one of the following:
a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
2. Excess opacity does not exceed 40%.
b. The permittee shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in Section 4.5.2.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
1. A detailed explanation of the factors involved or causes of the malfunction;
2. The date and time of duration (with starting and ending times) of the period of excess emissions;
3. An estimate of the mass of excess emissions discharged during the malfunction period;
4. The maximum opacity measured or observed during the malfunction;
5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.
[45CSR§2-9.3.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
VM-5-P	Tundish Drying Oven	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Used to preheat vessels prior to using with molten alloys.

Manufacturer:	**Model number:**	**Serial number:**
Electric Oven		
Construction date:	**Installation date:**	**Modification date(s):**
1984		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 1,429 SCFH	**Type and Btu/hr rating of burners:** 1,500,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM10A-P & PM10B-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in PM10A-P & PM10B-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1 and 45CSR13 - R13-2163]

5.1.2. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.
[45CSR§7-4.1. and 45CSR13 - R13-2163]

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.2.1. The Furnaces listed above shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-1-P CD-2-P	West Pickle Tanks 12-15	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1958	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
31,500 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	19,214 Tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	6.5
Total Particulate Matter (TSP)	--	6.5
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Sulfuric Acid (H_2SO_4)	--	0.04
Nitric Acid (HNO_3)	--	6.4
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data

required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-3-P CD-4-P	West Pickle Tanks 9,10	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1958	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
19,665 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	19,214 Tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	7.8
Total Particulate Matter (TSP)	--	7.8
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric Acid (HCl)	--	3.1
Sulfuric Acid (H_2SO_4)	--	0.01
Nitric Acid (HNO_3)	--	4.2
Ammonia (NH_3)	--	0.45
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications. [45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-5-P CD-6-P	West Pickle Tanks 8,9	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1958	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
31,000 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	19,214 Tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	2.1
Total Particulate Matter (TSP)	--	2.1
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric Acid (HCl)	--	0.35
Sulfuric Acid (H_2SO_4)	--	0.61
Nitric Acid (HNO_3)	--	1.1
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications. [45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-7-P CD-8-P	West Pickle Tank #7	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1958	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
8,000 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	19,214 Tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	1.10
Total Particulate Matter (TSP)	--	1.10
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Nitric Acid (HNO_3)	--	0.97
Hydrofluoric Acid (HF)	--	0.08
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data

required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-9-P CD-10-P	West Pickle Tank #5	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1958	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
8,650 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	19,214 Tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	1.30
Total Particulate Matter (TSP)	--	1.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Nitric Acid (HNO_3)	--	1.30
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if

appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-11-P CD-12-P	West Pickle Tank #3	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1958	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
11,000 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	19,214 Tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.16
Total Particulate Matter (TSP)	--	0.16
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Sulfuric Acid (H_2SO_4)	--	0.16
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall

include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-13-P CD-14-P	East Pickle	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides. Includes east pickle house tanks 51, 52, 53, 55, 56, 57, 58, 59.

Manufacturer:	**Model number:**	**Serial number:**
INCO		

Construction date:	**Installation date:**	**Modification date(s):**
1960	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
73,000 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	3,713 Tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	4.40
Total Particulate Matter (TSP)	--	4.40
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Sulfuric Acid (H_2SO_4)	--	1.00
Nitric Acid (HNO_3)	--	3.10
Hydrofluoric Acid (HF)	--	0.33
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall

include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications.
[45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-17-P	East Cutters (3 Saws)	CD-17-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Alloy rod cutting.

Manufacturer:	**Model number:**	**Serial number:**
Savage		
Construction date:	**Installation date:**	**Modification date(s):**
1960		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.275 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.275 tons/hr	2,409 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.03
Total Particulate Matter (TSP)	--	0.03
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	3.7E-03
Cobalt	--	2.8E-06
Copper	--	1.2E-04
Manganese	--	1.1E-04
Nickel	--	8.2E-03
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
East Cutters (3 Saws)	CD-17-P	0.43

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-23-P	West Cutters (3 Saws)	Baghouse CD-23-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Alloy rod Cutting.

Manufacturer:	**Model number:**	**Serial number:**
Savage		
Construction date:	**Installation date:**	**Modification date(s):**
1966		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.36 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.36 tons/hr	3154 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.36
Total Particulate Matter (TSP)	--	0.36
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.05
Cobalt	--	3.6E-05
Copper	--	1.5E-03
Manganese	--	1.4E-03
Nickel	--	0.11
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
West Cutters (3 Saws)	CD-23-P	0.57

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-31-P	Grind Building Saw	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Small alloy rod cutting to length.

Manufacturer:	**Model number:**	**Serial number:**
Savage		
Construction date:	**Installation date:**	**Modification date(s):**
1950		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.46 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.46 tons/hr	4,030 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.09
Total Particulate Matter (TSP)	--	0.09
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.01
Cobalt	--	8.7E-06
Copper	--	3.8E-04
Manganese	--	3.3E-04
Nickel	--	0.03
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42
Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Grind Building Saw	CD-31-P	0.72

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-32-P	West Pickle Salt Bath	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Surface treatment to remove oxides from products.

Manufacturer:	**Model number:**	**Serial number:**
Kolene		
Construction date:	**Installation date:**	**Modification date(s):** MM/DD/YYYY
< 1970		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
tons/hr	tons/yr	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 6,857 SCFH	**Type and Btu/hr rating of burners:** 7,200,000

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	3,604
Carbon Monoxide (CO)	--	2.50
Nitrogen Oxides (NO_X)	--	3.00
Lead (Pb)	--	1.5E-05
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.23
Total Particulate Matter (TSP)	--	0.23
Sulfur Dioxide (SO_2)	--	0.02
Volatile Organic Compounds (VOC)	--	0.17
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	7.2E-07
3-Methylchloranthrene	--	5.4E-08
7,12-Dimethylbenz(a)anthracene	--	4.8-E07
Acenaphthene	--	5.4E-08
Acenaphthylene	--	5.4E-08
Anthracene	--	7.2E-08
Benzene	--	6.3E-05
Benzo(a)anthracene	--	5.4E-08
Benzo(a)pyrene	--	3.6E-08
Benzo(b)fluoranthene	--	5.4E-08
Benzo(g,h,i)perylene	--	3.6E-08
Benzo(k)fluoranthene	--	5.4E-08
Chrysene	--	5.4-08
Dibenzo(a,h)anthracene	--	3.6E-08
Dichlorobenzene	--	3.6E-05
Fluoranthene	--	9.0E-08
Fluorene	--	8.4E-08
Formaldehyde	--	2.3E-03
Hexane	--	0.05
Indenol(1,2,3,c,d)pyrene	--	5.4E-08

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	1.8E-05
Phenanthrene	--	5.1E-07
Pyrene	--	1.5E-07
Toluene	--	1.0E-04
Arsenic	--	6.0E-06
Beryllium	--	3.6E-07
Cadmium	--	3.3E-05
Chromium	--	4.2E-05
Cobalt	--	2.5E-06
Manganese	--	1.1E-05
Mercury	--	7.8E-06
Nickel	--	6.3E-05
Selenium	--	7.2E-07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1.]

4.1.7. No owner or operator subject to the provisions of 45CSR10 shall build, erect, install, modify or use any article, machine, equipment or process, the use of which purposely conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[45CSR§10-11.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

4.2.1. The Main boiler, V.I.M. boiler, CAP Salt Bath and West Pickle Salt Bath shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Section 3.1.12. of this permit.
[45CSR§30-12.7.]

4.2.2. Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time. The permittee shall not allow emissions to exceed the weight emissions standards for sulfur dioxide as set forth in 45CSR10, except during one (1) continuous twenty-four (24) hour period in each calendar month and during this one (1) continuous twenty-four hour period said owner and/or operator shall not allow emissions to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day.
[45CSR§10-3.8.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-38-P	West Pickle Ammonia Tank	CD-38-C Ammonia Scrubber

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The pickling process is to surface treat batches of alloy to remove metal oxides.

Manufacturer:	**Model number:**	**Serial number:**
INCO		
Construction date:	**Installation date:**	**Modification date(s):**
1958	1958	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
12,000 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in CD-3-P & CD-4-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in CD-3-P & CD-4-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

9.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Maximum Allowable Emission Limit
Sulfuric Acid	70 mg/dscm
Nitric Acid	140 mg/dscm
Hydrochloric Acid	420 mg/dscm

[45CSR§7-4.2.]

9.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a. through 4.1.e. of 45CSR10.
[45CSR§10-4.1.]

9.1.4. The permittee has submitted to the Director an initial compliance certification in accordance with 45CSR§21-5.1. For sources which become subject to 45CSR§21-5 after May 31, 1993, the permittee shall submit an initial compliance certification immediately upon start-up which, at a minimum, shall include all the information outlined in 45CSR§21-5.1.a. and 5.1.b.
[45CSR§21-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

9.2.2. The Pickling Tanks shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. The permittee shall perform preventative maintenance in accordance with the manufacturer's recommendations and specifications. [45CSR§30-12.7.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** Scrubber
CD-36-P	Cold Draw Hard Chrome Plating	CD-36-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
This emission unit consists of two hard chrome plating tanks utilized for placing a thick chrome layer on various tools & dies used in the cold draw department primarily, but also in other areas of the plant. The process unit consists of a primary and secondary chrome plating tanks. Tank #2 is the primary tank and it has an electrical capacity of 600 amps. Tank #1 is the secondary tank and it has an electrical capacity of 400 amps. Both tanks contents consist of 440 pounds of chromic acid and 800 liters of sulfuric acid. In addition to the two chromic acid tanks there is a sulfuric etch tank and there is a stripping tank.

The hard chrome plating process at our facility is a "small" hard chrome plating process according to EPA standards. Our maximum potential cumulative rectifier capacity of 5,880,000 amp-hrs/yr. is far below the 60,000,000 amp-hrs/yr small source cutoff.

Manufacturer:	**Model number:**	**Serial number:**
Unknown		

Construction date:	**Installation date:**	**Modification date(s):**
01/01/1950	05/01/1950	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5,880,000 amp-hrs/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12 tons/hr		

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	6.1E-05
Total Particulate Matter (TSP)	--	6.1E-05
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	5.4E-06
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

A stack test was conducted on this source in December, 1996 to determine compliance with the NESHAPS regulatory limits. The source was found to be in compliance with the NESHAP emission limitation for the hard chromium plating subcategory.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

12.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from the Die Room Chrome Plater in excess of 0.19 lb/hr.
[45CSR§7-4.1.]

12.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

12.1.3. During tank operation, each owner or operator of an existing affected source shall control chromium emissions discharged to the atmosphere from that affected source by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.03 mg/dscm (1.3×10^{-5} gr/dscf).
[45CSR34 and 40 C.F.R. § 63.342(c)(1)(ii)]

12.1.4. The work practice standards of this section address operation and maintenance practices. All owners or operators subject to the standards of this section are subject to these work practice standards.
(1) (i) At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the operation and maintenance plan required by Section 12.1.4.(2) of this permit.
(ii) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan required by Section 12.1.4.(2) of this permit.
(iii) Operation and maintenance requirements established pursuant to section 112 of the Clean Air Act are enforceable independent of emissions limitations or other requirements in relevant standards.
[45CSR34 and 40 C.F.R. § 63.342(f)(1)]
(2) (i) The owner or operator of an affected source subject to the work practices of Section 12.1.4.(1) of this permit shall prepare an operation and maintenance plan to be implemented no later than the compliance date. The plan shall be incorporated by reference into the source's title V permit. The plan shall include the elements listed in 40 C.F.R. § 63.342(f)(3) (A) through (E).
(ii) If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the operation and maintenance plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
(iii) If actions taken by the owner or operator during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan required by Section 12.1.4.(2)(i) of this permit, the owner or operator shall record the actions taken for that event and shall report by phone such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator.
(iv) The owner or operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of 40 C.F.R. 63 Subpart N. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, by the Administrator for a period of 5 years after each revision to the plan.
[45CSR34 and 40 C.F.R. § 63.342(f)(3)]

12.1.5. An owner or operator of an existing hard chromium electroplating tank or tanks located at a small, hard chromium electroplating facility that increases its maximum cumulative potential rectifier capacity, or its actual cumulative rectifier capacity, such that the facility becomes a large, hard chromium electroplating facility must comply with the requirements of 40 C.F.R. § 63.342(c)(1)(i) for all hard chromium electroplating tanks at the facility no later than 1 year after the month in which monthly records required by 40 C.F.R. §§ 63.342(c)(2) and 63.346(b)(12) show that the large designation is met, or by the compliance date specified in 40 C.F.R. § 63.343(a)(1)(ii), whichever is later.
[45CSR34 and 40 C.F.R. § 63.343(a)(5)]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

12.3.1. Performance tests shall be conducted using the test methods and procedures in sections 40 C.F.R. §§ 63.344(c)(1), 63.344(d)(2)(ii), 63.344(d)(5), 63.344(e)(2), and 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs (a)(1) through (a)(9) of 40 C.F.R. § 63.344. The test plan to be followed shall be made available to the Administrator prior to the testing, if requested.
[45CSR34 and 40 C.F.R. § 63.344(a)]

12.4.1. (a) The owner or operator of each affected source subject to the standards of 40 C.F.R. § 63.346 shall fulfill all recordkeeping requirements outlined in this section and in the General Provisions to 40 CFR part 63, according to the applicability of subpart A as identified in Table 1 of 40 C.F.R. 63 Subpart N.
(b) The owner or operator of an affected source subject to the provisions of 40 C.F.R. 63 Subpart N shall maintain the records listed in 40 C.F.R. § 63.346 (b) (1) through (16) for such source.
(1) Inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of 40 C.F.R. § 63.342(f) and Table 1 of 40 C.F.R. § 63.342 have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.
(2) Records of all maintenance performed on the affected source, the add-on air pollution control device, and monitoring equipment;
(3) Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control, and monitoring equipment;
(4) Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;
(5) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by 40 C.F.R. § 63.342(f)(3);
(6) Test reports documenting results of all performance tests;
(7) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the special compliance procedures of 40 C.F.R. § 63.344(e);
(8) Records of monitoring data required by 40 C.F.R. § 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected;
(9) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control, or monitoring equipment;
(10) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control, or monitoring equipment;
(11) The total process operating time of the affected source during the reporting period;
(12) All documentation supporting the notifications and reports required by 40 C.F.R. §§ 63.9, 63.10, and 63.347.
(c) All records shall be maintained for a period of 5 years in accordance with 40 C.F.R. § 63.10(b)(1).
[45CSR34 and 40 C.F.R. § 63.346]

12.5.1. The owner or operator of each affected source subject to the standards of 40 C.F.R. 63 Subpart N shall fulfill all reporting requirements in accordance with 40 C.F.R. § 63.347 and in the General Provisions to 40 CFR part 63, according to the applicability of subpart A as identified in Table 1 of 40 C.F.R. 63 Subpart N. These reports shall be made to the Administrator at the appropriate address as identified in 40 C.F.R. § 63.13 or to the delegated State authority.
[45CSR34 and 40 C.F.R. § 63.347(a)]

12.5.2. Ongoing compliance status reports for major sources. The owner or operator of an affected source that is located at a major source site shall submit a summary report to the Administrator to document the ongoing compliance status of the affected source. The report shall contain the information identified in Section 12.5.3. of this permit, and shall be submitted semiannually unless the conditions in 40 C.F.R.§ 63.347(g)(1)(i) or (ii) are met.
[45CSR34 and 40 C.F.R. § 63.347(g)]

12.5.3. Contents of ongoing compliance status reports. The owner or operator of an affected source for which compliance monitoring is required in accordance with 40 C.F.R. § 63.343(c) shall prepare a summary report to document the ongoing compliance status of the source. The report must contain the information listed in 40 C.F.R. § 63.347(g)(3).
[45CSR34 and 40 C.F.R. § 63.347(g)(3)]

12.5.4. When more than one monitoring device is used to comply with the continuous compliance monitoring required by 40 C.F.R. § 63.343(c), the owner or operator shall report the results as required for each monitoring device. However, when one monitoring device is used as a backup for the primary monitoring device, the owner or operator shall only report the results from the monitoring device used to meet the monitoring requirements of 40 C.F.R. 63 Subpart N. If both devices are used to meet these requirements, then the owner or operator shall report the results from each monitoring device for the relevant compliance period.
[45CSR34 and 40 C.F.R. § 63.347(g)(4)]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-39-P	Rod Cell Saw	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Alloy tube cutting to length.

Manufacturer:	**Model number:**	**Serial number:**
Savage		
Construction date:	**Installation date:**	**Modification date(s):**
1959		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.5 tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.5 tons/hr	4380 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.09
Total Particulate Matter (TSP)	--	0.09
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.01
Cobalt	--	9.5E-06
Copper	--	4.1E-04
Manganese	--	3.6E-04
Nickel	--	0.03
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Emissions Chemistry

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CD-40-P	Centro Metalcut Type CAC 1220 Abrasive Saw	CD-40-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Alloy tubes, rods, and rounds will be taken to the saw to be finish cut into customer specifications.

Manufacturer:	**Model number:**	**Serial number:**
Centro-Metalcut	CAC 1220	

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2010	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5,708 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	5.60
Total Particulate Matter (TSP)	--	5.60
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.56
Cobalt	--	0.14
Copper	--	0.27
Manganese	--	0.03
Nickel	--	2.50
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Volume removed from saw blade thickness and baghouse control efficiency.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

7.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Centro-Metalcut Type CAC 1220 Abrasive Saw	CD-40-P	5.71

[45CSR§7-4.1., 45CSR13 - R13-2163]

7.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1., 45CSR13 - R13-2163]

7.1.3. The maximum weight of alloy to be processed in the abrasive saw CD-40-P shall not exceed 25,000 tons per year based on a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the alloy processed, in tons per month, at any given time for the previous twelve consecutive calendar months.
[45CSR§30-5.1.c. and 45CSR13-R13-2163]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

7.2.4. The perrmittee shall visually inspect each particulate matter capture system, points of capture or collection; filter vents, ducts, connections, housings and associated air pollution control devices for malfunction, leaks and effective operation every three (3) calendar months. The permittee shall perform preventive or corrective action as expeditiously as possible to ensure particulate matter capture system integrity and effective operation. Records of such inspection shall be maintained in accordance with Condition 3.4.2. of this permit.
[45CSR§30-5.1.c., 45CSR13, R13-2163]

7.2.5. The permittee shall visually inspect the operation of each exterior baghouse cleaning system mechanism, interior cleaning equipment and the clean side of bags for evidence of leaks or failure once every thirty (30) calendar days of operation. The permittee shall perform preventive or corrective action as expeditiosly as possible to ensure effective operation of baghouse cleaning system mechanism, interior cleaning equipment and filter fabric integrity. The permittee shall record the date of such inspections and document any baghouse cleaning system repair, filter fabric replacement, preventive or corrective action taken. Records of such inspection shall be maintained in accordance with Condition 3.4.2. of this permit.
[45CSR§30-5.1.c., 45CSR13, R13-2163]

7.4.2. Record of Maintenance of Air Pollution Control Equipment. For Baghouse/Cyclone CD-40-C, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2163]

7.4.3. Record of Malfunctions of Air Pollution Control Equipment. For Baghouse/Cyclone CD-40-C, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13, R13-2163]

7.4.4. For the purpose of determining compliance with Condition 7.1.3., the facility shall maintain monthly records. At a minimum, the record shall contain the information outlined in the example record keeping forms that were appended to permit R13-2163A which includes; the month, the process weight throughput for the current month and the rolling yearly total, and the hours of operation. All records shall be initialed by a "Responsible Official" within fifteen (15) days after the end of the calendar month using the space provided on the record forms, and then signed by a "Responsible Official" within thirty (30) days after the end of the calendar year utilizing the Certificatiom of Data Accuracy statement provided with R13-2163A, which is to be copied to the reverse side of each reporting form. This information shall be maintained on-site for a period of no less than five (5) calendar years from the date of the last entry on the form, and be made available to the Director or his duly authorized representative upon request. The permittee may propose to the Director a different form of recordkeeping from that described.
[45CSR§30-5.1.c., 45CSR13, R13-2163]

7.4.5. The permittee shall maintain records of all monitoring data required by Sections 7.2.4. and 7.2.5. documenting the date and time of each inspection, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13, R13-2163]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CA-1-P	Carpenter Shop Woodcutting Operations	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Construction of boxes and wood crates to ship our products to customers.

Manufacturer:	**Model number:**	**Serial number:**
Inco		
Construction date:	**Installation date:**	**Modification date(s):**
1958		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.5 Ton

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.5 Ton	28,470 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	1.40
Total Particulate Matter (TSP)	--	1.40
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Mass Balance

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

8.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Woodcutting Operations	CA-1-P	3

[45CSR§7-4.1.]

8.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

8.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CA-2-P	Carpenter Shop Woodcutting Operations	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Construction of boxes and wood crates to ship our products to customers.

Manufacturer:	**Model number:**	**Serial number:**
Inco		
Construction date:	**Installation date:**	**Modification date(s):**
1958		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.5 Ton

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.5 Ton	28,470 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.77
Total Particulate Matter (TSP)	--	0.77
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Mass Balance

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

8.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Woodcutting Operations	CA-2-P	3

[45CSR§7-4.1.]

8.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

8.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SC-1-P	Service Center Wood Saws	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Construction of boxes and wood crates to ship our products to customers

Manufacturer:	**Model number:**	**Serial number:**
Inco		

Construction date:	**Installation date:**	**Modification date(s):**
<1970		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.5 Ton

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.5 Ton	9,490 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.05
Total Particulate Matter (TSP)	--	0.05
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Mass Balance

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

8.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Wood Saws	SC-1-P	1

[45CSR§7-4.1.]

8.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

8.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? __X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
SC-2-P	Service Center Saw	SC-2-C Wet Mist Scrubber

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Located in the Service Center, used to finish cut alloy material.

Manufacturer:	**Model number:**	**Serial number:**
Savage		
Construction date:	**Installation date:**	**Modification date(s):**
1970		MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.5Tons/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.5 Tons/hr	4,380 Tons	24/7/52

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
	5.0		

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	4.1
Total Particulate Matter (TSP)	--	4.1
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.41
Cobalt	--	0.10
Copper	--	0.20
Manganese	--	0.02
Nickel	--	1.9
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

8.1.1. No person shall cause, suffer, allow, or permit PM to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantities specified in this permit.

Equipment	Unit ID	Maximum Allowable PM Emission Limit (lb/hr)
Wood Saws	SC-2-P	1

[45CSR§7-4.1.]

8.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. of 45CSR7.
[45CSR§7-3.1]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

8.2.1. Visual emission checks of each emission point subject to an opacity limit shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A "Compliance Test Procedures for 7A." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22, or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-1-P	Tumble Blaster	TP-10-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Manufacturer:	**Model number:**	**Serial number:**
OMSG Shotblaster	Type SG10 H2 Metal Slat Tumblasts	
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2002	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
15,000 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	119,912 lbs/yr (lbs of steel shot purchased)	

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.02
Total Particulate Matter (TSP)	--	0.02
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

13.1.1. Emissions from these sources shall not exceed the following:

Source	PM	
	lb/hr	tpy
Tumble Blaster 1 (TP-1P)	0.13	0.59

Compliance with these limits shall demonstrate compliance with the less stringent requirements of 45CSR§7-4.1.
[45CSR13 - Permit R13-2532; and 45CSR§7-4.1.]

13.1.2. The permittee shall operate the following units within the specified parameter limits:

Source	Parameter	Limit
Tumble Blaster 1	Pounds of Shot Used	200 pounds per day

[45CSR13 - Permit R13-2532]

13.1.4 Particulate Matter emissions from the Tumble Blaster shall be controlled by the use of a baghouse. Said baghouse shall be designed, installed, maintained and operated in such a manner so as to reduce PM emissions from the Tumble Blaster by at least 99.99%.
[45CSR13 - Permit R13-2532]

13.1.5 No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air form any process source operation greater than twenty (20) percent opacity, except as noted in 45CSR§§7-3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR13 - Permit R13-2532 and 45 CSR §7-3.1.]

13.1.6 No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR13 - Permit R13-2532 and 45 CSR §7-5.1.]

13.1.8. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate Baghouse TP-10-C, and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - Permit R13-2532 and 45CSR§13-5.11.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

13.3.1. Record of Monitoring. The permittee shall keep records of monitoring information that include the following:
a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.
[45CSR13 - Permit R13-2532]

13.3.2. For Baghouse TP-10-C, the permittee shall visually inspect the filter cartridges through the inspection doors. The permittee shall monitor the differential pressure controller and ensure that the pressure drop is maintained below 5.0 PSI.
[45CSR§30-5.1.c.]

13.3.3. Record of Maintenance of Air Pollution Control Equipment. For Baghouse TP-10C, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13 - Permit R13-2532]

13.3.4. Record of Malfunctions of Air Pollution Control Equipment. For Baghouse TP-10C, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13 - Permit R13-2532]

13.3.5. In order to determine compliance with the emissions limits of condition 13.1.1 of this permit and the usage limits of condition 13.1.2 of this permit, the permittee shall maintain certifiable monthly records of the following:
a. The amount of shot used in the tumble blaster and cabinet blaster.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-3-P	Plasma Cutter	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Manufacturer:	**Model number:**	**Serial number:**
Thermal Dynamics	PAK 45 Plasma Cutter	
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2002	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5,000 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	2.20
Total Particulate Matter (TSP)	--	2.20
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	0.57
Nickel	--	1.30
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

13.1.1. Emissions from these sources shall not exceed the following:

Source	PM	
	lb/hr	tpy
Plasma Cutter (TP-3P)	0.5	2.19

Compliance with these limits shall demonstrate compliance with the less stringent requirements of 45CSR§7-4.1. [45CSR13 - Permit R13-2532; and 45CSR§7-4.1.]

13.1.2. The permittee shall operate the following units within the specified parameter limits:

Source	Parameter	Limit
Plasma Cutter	Pounds Cut	18,000 pounds per day

[45CSR13 - Permit R13-2532]

13.1.5 No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air form any process source operation greater than twenty (20) percent opacity, except as noted in 45CSR§§7-3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR13 - Permit R13-2532 and 45 CSR §7-3.1.]

13.1.6 No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR13 - Permit R13-2532 and 45 CSR §7-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

13.3.1. Record of Monitoring. The permittee shall keep records of monitoring information that include the following:
a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.
[45CSR13 - Permit R13-2532]

13.3.5. In order to determine compliance with the emissions limits of condition 13.1.1 of this permit and the usage limits of condition 13.1.2 of this permit, the permittee shall maintain certifiable monthly records of the following:
b. The pounds of material cut by the plasma cutter.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-4-P	Arc Cutter	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Arc welding unit.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2002	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,500 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	13,693 #rods/yr (Number of rods used)	

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.38
Total Particulate Matter (TSP)	--	0.38
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

13.1.1. Emissions from these sources shall not exceed the following:

Source	PM	
	lb/hr	tpy
Arc Cutter 1 (TP-4P)	0.05	0.21

Compliance with these limits shall demonstrate compliance with the less stringent requirements of 45CSR§7-4.1.
[45CSR13 - Permit R13-2532; and 45CSR§7-4.1.]

13.1.2. The permittee shall operate the following units within the specified parameter limits:

Source	Parameter	Limit
Arc Cutting	Rods Used	960 per day

[45CSR13 - Permit R13-2532]

13.1.5 No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air form any process source operation greater than twenty (20) percent opacity, except as noted in 45CSR§§7-3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR13 - Permit R13-2532 and 45 CSR §7-3.1.]

13.1.6 No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR13 - Permit R13-2532 and 45 CSR §7-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

13.3.1. Record of Monitoring. The permittee shall keep records of monitoring information that include the following:
a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.
[45CSR13 - Permit R13-2532]

13.3.5. In order to determine compliance with the emissions limits of condition 13.1.1 of this permit and the usage limits of condition 13.1.2 of this permit, the permittee shall maintain certifiable monthly records of the following:
c. The number of rods used by the arc cutter.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-5-P	Arc Cutter	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Arc welding unit.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2006	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,500 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	13,693 #rods/yr (Number of rods used)	

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Already included in TP-4-P		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Already included in TP-4-P		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

13.1.1. Emissions from these sources shall not exceed the following:

Source	PM	
	lb/hr	tpy
Arc Cutter 2 (TP-5P)	0.05	0.21

Compliance with these limits shall demonstrate compliance with the less stringent requirements of 45CSR§7-4.1. [45CSR13 - Permit R13-2532; and 45CSR§7-4.1.]

13.1.2. The permittee shall operate the following units within the specified parameter limits:

Source	Parameter	Limit
Arc Cutting	Rods Used	960 per day

[45CSR13 - Permit R13-2532]

13.1.5 No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air form any process source operation greater than twenty (20) percent opacity, except as noted in 45CSR§§7-3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR13 - Permit R13-2532 and 45 CSR §7-3.1.]

13.1.6 No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR13 - Permit R13-2532 and 45 CSR §7-5.1.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

13.3.1. Record of Monitoring. The permittee shall keep records of monitoring information that include the following:
a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.
[45CSR13 - Permit R13-2532]

13.3.5. In order to determine compliance with the emissions limits of condition 13.1.1 of this permit and the usage limits of condition 13.1.2 of this permit, the permittee shall maintain certifiable monthly records of the following:
c. The number of rods used by the arc cutter.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-6-P	Cabinet Blaster	TP-10-C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Manufacturer:	**Model number:**	**Serial number:**
Construction date: MM/DD/2002	**Installation date:** MM/DD/YYYY	**Modification date(s):** MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
35,000 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:** 69,180 lbs/yr (lbs of abrasive product purchased)	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	0.01
Total Particulate Matter (TSP)	--	0.01
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

13.1.1. Emissions from these sources shall not exceed the following:

Source	PM	
	lb/hr	tpy
Cabinet Blaster (TP-6P)	0.01	0.03

Compliance with these limits shall demonstrate compliance with the less stringent requirements of 45CSR§7-4.1. [45CSR13 - Permit R13-2532; and 45CSR§7-4.1.]

13.1.2. The permittee shall operate the following units within the specified parameter limits:

Source	Parameter	Limit
Cabinet Blasting	Pounds of Shot Used	200 pounds per day

[45CSR13 - Permit R13-2532]

13.1.3 Particulate Matter emissions from the Cabinet Blaster shall be controlled by the use of a baghouse. Said baghouse shall be designed, installed, maintained and operated in such a manner so as to reduce PM emissions from the Cabinet Blaster by at least 99.99%.
[45CSR13 - Permit R13-2532]

13.1.5 No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air form any process source operation greater than twenty (20) percent opacity, except as noted in 45CSR§§7-3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR13 - Permit R13-2532 and 45 CSR §7-3.1.]

13.1.6 No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR13 - Permit R13-2532 and 45 CSR §7-5.1.]

13.1.8. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate Baghouse TP-10-C, and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - Permit R13-2532 and 45CSR§13-5.11.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

13.3.1. Record of Monitoring. The permittee shall keep records of monitoring information that include the following:
a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.
[45CSR13 - Permit R13-2532]

13.3.2. For Baghouse TP-10-C, the permittee shall visually inspect the filter cartridges through the inspection doors. The permittee shall monitor the differential pressure controller and ensure that the pressure drop is maintained below 5.0 PSI.
[45CSR§30-5.1.c.]

13.3.3. Record of Maintenance of Air Pollution Control Equipment. For Baghouse TP-10C, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13 - Permit R13-2532]

13.3.4. Record of Malfunctions of Air Pollution Control Equipment. For Baghouse TP-10C, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13 - Permit R13-2532]

13.3.5. In order to determine compliance with the emissions limits of condition 13.1.1 of this permit and the usage limits of condition 13.1.2 of this permit, the permittee shall maintain certifiable monthly records of the following:
a. The amount of shot used in the tumble blaster and cabinet blaster.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-2-P	Plasma Cutter	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, to reduce the size of large scrap, the plasma cutter cuts the material into smaller pieces.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Cut metal scrap: 5,000 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	2.20
Total Particulate Matter (TSP)	--	2.20
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Nickel	--	1.30
Chromium	--	0.57
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Based on testing at Huntington Revert facility measuring net mass lost during plasma cutting.
HAPs based on annual average HAP contained in metal processed, as determined from 2008 TRI data.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.1. Scrap Metal Nickel and Chromium Content. The permittee shall notify the Director in writing of any change in Nickel and/or Chromium content in the scrap metal (content now set at 60% and 25% by weight, respectively) and shall quantify the effect of the change upon air emissions.
[45CSR13 - Permit R13-2532]

14.1.2. Emission Point (TP-2-S) - Plasma Cutter PM Emissions. The emission point (TP-2-S) associated with the Plasma Cutter (TP-2-P) shall not exceed the following maximum emission rates:

Pollutant	Maximum Emission Rate	
	(lb/hr)	(ton/yr)
Particulate Matter (PM)	0.50	1.75
Hazardous Air Pollutants (HAP)	0.43	1.49

[45CSR13 - Permit R13-2532]

14.1.4. Scrap Metal Processing Rates. The following hourly and annual scrap metal processing rates shall not be exceeded:

Equipment Unit ID	Equipment Name/Type	Maximum Processing Rate	
		(lb/hr)	(ton/yr)
TP-2-P	Plasma Cutter	5,000	21,900

[45CSR13 - Permit R13-2532]

14.1.19. Process Opacity Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 45CSR§§7- 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1.; 45CSR13 - Permit R13-2532]

14.1.20. Quarterly (every three months) opacity checks shall be performed per the test requirements given in Section 14.3.1. for the process equipment listed in 14.1.19. above.
[45CSR13 - Permit R13-2532]

14.1.21. Process PM Emission Weight Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A from 45CSR7.
[45CSR§7-4.1.; 45CSR13 - Permit R13-2532]

14.1.24. At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or other tests the Secretary may specify shall be conducted to determine compliance.
[45CSR13 - Permit R13-2532, Condition 5.1.24.]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
a. To demonstrate compliance with Sections 14.1.1. and 14.1.2., a person designated by a Responsible Official or Authorized Representative shall maintain a file documenting scrap metal nickel and chromium content, and the value of the hourly emission factor for the plasma cutter, and any correspondence sent with regards to changes in metal content and the hourly emission factor.

14.4.2. Equipment Maintenance Records. The permittee shall maintain maintenance records relating to failure and/or repair of process equipment covered in this permit. In the event of equipment or system failure, these records shall document the permittee's efforts to maintain proper and effective operation of such equipment and/or systems.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-7A-P	Rotary Borings Kiln 1	TP-7A-1C, Cyclone TP-7A-2C, Thermal Oxidizer TP-7A-3C, Baghouse

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, the rotary burn-off kiln heats the scrap metal to vaporize any oils and water present. The clean and dry scrap metal will exit from one end of the rotary kiln while the hot exhaust gases containing vaporized oils and water will exit the kiln at the other end. After exiting the kiln, these exhaust gases will be heated to above 600 °F in a smoke hood in order to prevent condensation of volatilized oils in the ducting system. The smoke hood will provide direct heat to the exhaust stream via a 0.75 MMBtuh/hr natural gas burner.

Manufacturer:	**Model number:**	**Serial number:**
EnviroAir Inc. (CORECO)	Model BD-60	
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Dirty scrap metal: 8,000 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Smoke Hood at 0.75 MMBtu/hr	**Type and Btu/hr rating of burners:** Smoke Hood: one burner rated at 0.75 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline natural gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	1,417
Carbon Monoxide (CO)	--	0.99
Nitrogen Oxides (NO_X)	--	1.20
Lead (Pb)	--	5.9E-06
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.09
Total Particulate Matter (TSP)	--	0.09
Sulfur Dioxide (SO_2)	--	7.1E-03
Volatile Organic Compounds (VOC)	--	0.06
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	2.8E-07
3-Methylchloranthrene	--	2.1E-08
7,12-Dimethylbenz(a)anthracene	--	1.9E-07
Acenaphthene	--	2.1E-08
Acenaphthylene	--	2.1E-08
Anthracene	--	2.8E-08
Benzene	--	2.5E-05
Benzo(a)anthracene	--	2.1E-08
Benzo(a)pyrene	--	1.4E-08
Benzo(b)fluoranthene	--	2.1E-08
Benzo(g,h,i)perylene	--	1.4E-08
Benzo(k)fluoranthene	--	2.1E-08
Chrysene	--	2.1E-08
Dibenzo(a,h)anthracene	--	1.4E-08
Dichlorobenzene	--	1.4E-05
Fluoranthene	--	3.5E-08
Fluorene	--	3.3E-08
Formaldehyde	--	8.9E-04
Hexane	--	0.02
Indenol(1,2,3,c,d)pyrene	--	2.1E-08

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	7.2E-06
Phenanthrene	--	2.0E-07
Pyrene	--	5.9E-08
Toluene	--	4.0E-05
Arsenic	--	2.4E-06
Beryllium	--	1.4E-07
Cadmium	--	1.3E-05
Chromium	--	1.7E-05
Cobalt	--	9.9E-07
Manganese	--	4.5E-06
Mercury	--	3.1E-06
Nickel	--	2.5E-05
Selenium	--	2.8E-07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.3. Control Equipment Guaranteed Collection Efficiencies. The following control equipment shall be installed and shall have at least the guaranteed collection efficiency as listed below:

Control Device ID No.	Control Device	Emission Source	Pollutant Controlled	% Guaranteed Collection Efficiency	Comments
TP-7A-1C	Cyclone	Kiln 1 Exhaust	PM	99	Cyclone, Thermal Oxidizer, and Baghouse to be online when Kiln 1 is in operation.
TP-7A-2C	Thermal		VOC	99	
TP-7A-3C	Baghouse		PM	99	

[45CSR13 - Permit R13-2532]

14.1.4. Scrap Metal Processing Rates. The following hourly and annual scrap metal processing rates shall not be exceeded:

Equipment Unit ID	Equipment Name/Type	Maximum Processing Rate	
		(lb/hr)	(ton/yr)
TP-7A-P	Kiln 1	8,000	35,040

[45CSR13 - Permit R13-2532]

14.1.13. Emission Points TP-7A-P – Kiln 1 Exhaust Controls. The Cyclone (TP-7A-1C), Thermal Oxidizer (TP-7A-2C), and Baghouse (TP-7A-3C) shall be in good operating condition and online at all times during the operation of the Rotary Boring Kiln 1 (Emission Unit TP-7A-P).
[45CSR13 - Permit R13-2532]

14.1.15. Emission Points TP-7A-P and TP-8A-P – Kiln Exhaust Emissions. Each of the two (2) emission points (TP-7A-S and TP-8A-S) associated with two (2) Rotary Boring Kilns [Kiln #1 (TP-7A-P) and Kiln 2 (TP-8A-P)] shall not exceed the following maximum pollutant rates:

Pollutant	Max. Pollutant Rate Per Emission Point	
	(lb/hr)	(ton/yr)
Particulate Matter (PM)	0.01	0.01
Sulfur Dioxide (SO2)	0.80	2.46
Nitrogen Oxides (NOx)	0.27	1.18
Carbon Monoxide (CO)	0.23	0.99
Volatile Organic	0.80	3.55

[45CSR13 - Permit R13-2532]

14.1.19. Process Opacity Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 45CSR§§7- 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1.; 45CSR13 - Permit R13-2532]

14.1.20. Quarterly (every three months) opacity checks shall be performed per the test requirements given in Section 14.3.1. for the process equipment listed in 14.1.19. above.
[45CSR13 - Permit R13-2532, Condition 5.1.20.]

14.1.21. Process PM Emission Weight Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A from 45CSR7.
[45CSR§7-4.1.; 45CSR13 - Permit R13-2532]

14.1.22. Sulfur Dioxide (SO2) In-stack Concentration Limitation – Kiln 1 and Kiln 2 Exhausts.
No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1a.through e.
[45CSR§10-4.1.; 45CSR13 - Permit R13-2532]

14.1.23. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - Permit R13-2532]

14.1.24. At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or other tests the Secretary may specify shall be conducted to determine compliance.
[45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.2.1. In order to demonstrate compliance with the VOC emission limit in condition 14.1.15, the permittee shall do the following:
a. The temperature of each thermal oxidizer's chamber shall be monitored by a thermocouple. The sensor will be located in the oxidizer as an integral part of the oxidizer design.
b. Each kiln system will be programmed to automatically shutdown when the thermal oxidizer chamber is operating below 1,200 °F for 60 minutes or more.
c. The temperature will be measured continuously.
d. The temperature shall be continuously recorded electronically.
e. The temperature readings shall be checked daily to confirm status of monitoring.
f. Accuracy of the thermocouple shall be verified by a second probe inserted into the incinerator chamber with a handheld meter. This validation check will be conducted at least annually.
g. The accuracy of the thermocouple shall be ± 5 °C.

14.2.4. Commencement of operation. The permittee shall conduct the monitoring required under 40 CFR Part 64 upon issuance of this permit that includes such monitoring, or by the initial start-up date of the kilns (TP-7A-S and TP-8A-S) that requires such monitoring, whichever is later.

[40 CFR §§ 64.7(a) and 64.6(d); 45CSR§30-5.1.c.]

14.2.5. Proper Maintenance – At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[40 CFR § 64.7(b); 45CSR§30-5.1.c.]

14.2.6. Continued Operation – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR § 64.7(c); 45CSR§30-5.1.c.]

14.2.7. Documentation of Need for Improved Monitoring – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 CFR § 64.7(e); 45CSR§30-5.1.c.]

14.2.8. Excursions – an excursion is defined as any instance where the oxidizer temperature is below 1200°F for at least 60 minutes or any instance where the temperature falls below 1150 °F. An excursion can only occur when the processing unit (rotary borings kiln) is in operation
[40 CFR § 64.6(c)(2); 45CSR§30-5.1.c.]

14.2.9. Response to Excursions or Exceedances:
a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of 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 cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
[40 CFR § 64.7(d); 45CSR§30-5.1.c.]

14.2.10. Quality Improvement Plan (QIP) – Based on the results of a determination made under 40 CFR §64.7(d)(2) (permit condition 14.2.9.b), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e). Refer to permit condition 14.5.2.c for the reporting required when a QIP is implemented.
[40 CFR § 64.8; 45CSR§30-5.1.c.]

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission

points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
b. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the guaranteed collection efficiencies of the control devices listed in Section 14.1.3.
c. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall keep a record of all maintenance work performed on the control devices listed in Section 14.1.3.
d. To demonstrate compliance with Section 14.1.4., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and twelve-month-rolling totals of scrap metal processing rates for the equipment listed in Section 14.1.4.
e. To demonstrate compliance with Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and time of operation of the control devices listed in Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.2. Equipment Maintenance Records. The permittee shall maintain maintenance records relating to failure and/or repair of process equipment covered in this permit. In the event of equipment or system failure, these records shall document the permittee's efforts to maintain proper and effective operation of such equipment and/or systems.
[45CSR13 - Permit R13-2532]

14.4.4. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13 - Permit R13-2532]

14.4.5. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13 - Permit R13-2532, Condition 5.4.3.]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.4.7. For the purpose of demonstrating compliance with Conditions 14.1.15. and 14.2.1, the permittee shall maintain records of the times and duration of all excursions as defined in Condition14.2.8.
[45CSR§30-5.1.c. and 40 C.F.R. § 64.6 (c)]

14.4.8. For the purpose of demonstrating compliance Conditions 14.1.15. and 14.2.1, the permittee shall maintain records of thermocouple validation checks conducted in accordance with Condition 14.2.1.
[45CSR§30-5.1.c. and 40 C.F.R. § 64.6 (c)]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

14.5.2. General reporting requirements for CAM. A report for monitoring under 40 C.F.R. Part 64 shall include the following information as applicable:
a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
b. 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 daily calibration checks, if applicable); and
c. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. § 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
[40 C.F.R. § 64.9 (a) (2)]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-8A-P	Rotary Borings Kiln 2	TP-8A-1C, Cyclone TP-8A-2C, Thermal Oxidizer TP-8A-3C, Baghouse

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, the rotary burn-off kiln heats the scrap metal to vaporize any oils and water present. The clean and dry scrap metal will exit from one end of the rotary kiln while the hot exhaust gases containing vaporized oils and water will exit the kiln at the other end. After exiting the kiln, these exhaust gases will be heated to above 600 °F in a smoke hood in order to prevent condensation of volatilized oils in the ducting system. The smoke hood will provide direct heat to the exhaust stream via a 0.75 MMBtuh/hr natural gas burner.

Manufacturer:	**Model number:**	**Serial number:**
EnviroAir Inc. (CORECO)	Model BD-60	
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Dirty scrap metal: 8,000 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Smoke Hood at 0.75 MMBtu/hr	**Type and Btu/hr rating of burners:** Smoke Hood: one burner rated at 0.75 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline natural gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	1,417
Carbon Monoxide (CO)	--	0.99
Nitrogen Oxides (NO_X)	--	1.20
Lead (Pb)	--	5.9E-06
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.09
Total Particulate Matter (TSP)	--	0.09
Sulfur Dioxide (SO_2)	--	7.1E-03
Volatile Organic Compounds (VOC)	--	0.06
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	2.8E-07
3-Methylchloranthrene	--	2.1E-08
7,12-Dimethylbenz(a)anthracene	--	1.9E-07
Acenaphthene	--	2.1E-08
Acenaphthylene	--	2.1E-08
Anthracene	--	2.8E-08
Benzene	--	2.5E-05
Benzo(a)anthracene	--	2.1E-08
Benzo(a)pyrene	--	1.4E-08
Benzo(b)fluoranthene	--	2.1E-08
Benzo(g,h,i)perylene	--	1.4E-08
Benzo(k)fluoranthene	--	2.1E-08
Chrysene	--	2.1E-08
Dibenzo(a,h)anthracene	--	1.4E-08
Dichlorobenzene	--	1.4E-05
Fluoranthene	--	3.5E-08
Fluorene	--	3.3E-08
Formaldehyde	--	8.9E-04
Hexane	--	0.02
Indenol(1,2,3,c,d)pyrene	--	2.1E-08

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	7.2E-06
Phenanthrene	--	2.0E-07
Pyrene	--	5.9E-08
Toluene	--	4.0E-05
Arsenic	--	2.4E-06
Beryllium	--	1.4E-07
Cadmium	--	1.3E-05
Chromium	--	1.7E-05
Cobalt	--	9.9E-07
Manganese	--	4.5E-06
Mercury	--	3.1E-06
Nickel	--	2.5E-05
Selenium	--	2.8E-07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.3. Control Equipment Guaranteed Collection Efficiencies. The following control equipment shall be installed and shall have at least the guaranteed collection efficiency as listed below:

Control Device ID No.	Control Device	Emission Source	Pollutant Controlled	% Guaranteed Collection Efficiency	Comments
TP-8A-1C	Cyclone	Kiln 2 Exhaust	PM	99	Cyclone, Thermal Oxidizer, and Baghouse to be online when Kiln 2 is in operation.
TP-8A-2C	Thermal		VOC	99	
TP-8A-3C	Baghouse		PM	99	

[45CSR13 - Permit R13-2532]

14.1.4. Scrap Metal Processing Rates. The following hourly and annual scrap metal processing rates shall not be exceeded:

Equipment Unit ID	Equipment Name/Type	Maximum Processing Rate	
		(lb/hr)	(ton/yr)
TP-8A-P	Kiln 2	8,000	35,040

[45CSR13 - Permit R13-2532]

14.1.14. Emission Points TP-8A-P – Kiln 2 Exhaust Controls. The Cyclone (TP-8A-1C), Thermal Oxidizer (TP-8A-2C), and Baghouse (TP-8A-3C) shall be in good operating condition and online at all times during the operation of the Rotary Boring Kiln 2 (Emission Unit TP-8A-P).
[45CSR13 - Permit R13-2532]

14.1.15. Emission Points TP-7A-P and TP-8A-P – Kiln Exhaust Emissions. Each of the two (2) emission points (TP-7A-S and TP-8A-S) associated with two (2) Rotary Boring Kilns [Kiln #1 (TP-7A-P) and Kiln 2 (TP-8A-P)] shall not exceed the following maximum pollutant rates:

Pollutant	Max. Pollutant Rate Per Emission Point	
	(lb/hr)	(ton/yr)
Particulate Matter (PM)	0.01	0.01
Sulfur Dioxide (SO2)	0.80	2.46
Nitrogen Oxides (NOx)	0.27	1.18
Carbon Monoxide (CO)	0.23	0.99
Volatile Organic	0.80	3.55

[45CSR13 - Permit R13-2532]

14.1.19. Process Opacity Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 45CSR§§7- 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1.; 45CSR13 - Permit R13-2532]

14.1.20. Quarterly (every three months) opacity checks shall be performed per the test requirements given in Section 14.3.1. for the process equipment listed in 14.1.19. above.
[45CSR13 - Permit R13-2532, Condition 5.1.20.]

14.1.21. Process PM Emission Weight Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.

No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A from 45CSR7.
[45CSR§7-4.1.; 45CSR13 - Permit R13-2532]

14.1.22. Sulfur Dioxide (SO2) In-stack Concentration Limitation – Kiln 1 and Kiln 2 Exhausts.
No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1a.through e.
[45CSR§10-4.1.; 45CSR13 - Permit R13-2532]

14.1.23. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - Permit R13-2532]

14.1.24. At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or other tests the Secretary may specify shall be conducted to determine compliance.
[45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.2.1. In order to demonstrate compliance with the VOC emission limit in condition 14.1.15, the permittee shall do the following:
a. The temperature of each thermal oxidizer's chamber shall be monitored by a thermocouple. The sensor will be located in the oxidizer as an integral part of the oxidizer design.
b. Each kiln system will be programmed to automatically shutdown when the thermal oxidizer chamber is operating below 1,200 °F for 60 minutes or more.
c. The temperature will be measured continuously.
d. The temperature shall be continuously recorded electronically.
e. The temperature readings shall be checked daily to confirm status of monitoring.
f. Accuracy of the thermocouple shall be verified by a second probe inserted into the incinerator chamber with a handheld meter. This validation check will be conducted at least annually.
g. The accuracy of the thermocouple shall be ± 5 °C.

14.2.4. Commencement of operation. The permittee shall conduct the monitoring required under 40 CFR Part 64 upon issuance of this permit that includes such monitoring, or by the initial start-up date of the kilns (TP-7A-S and TP-8A-S) that requires such monitoring, whichever is later.
[40 CFR §§ 64.7(a) and 64.6(d); 45CSR§30-5.1.c.]

14.2.5. Proper Maintenance – At all times, the permittee shall maintain the monitoring, including but not limited to,

maintaining necessary parts for routine repairs of the monitoring equipment.
[40 CFR § 64.7(b); 45CSR§30-5.1.c.]

14.2.6. Continued Operation – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR § 64.7(c); 45CSR§30-5.1.c.]

14.2.7. Documentation of Need for Improved Monitoring – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 CFR § 64.7(e); 45CSR§30-5.1.c.]

14.2.8. Excursions – an excursion is defined as any instance where the oxidizer temperature is below 1200°F for at least 60 minutes or any instance where the temperature falls below 1150 °F. An excursion can only occur when the processing unit (rotary borings kiln) is in operation
[40 CFR § 64.6(c)(2); 45CSR§30-5.1.c.]

14.2.9. Response to Excursions or Exceedances:
a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of 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 cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
[40 CFR § 64.7(d); 45CSR§30-5.1.c.]

14.2.10. Quality Improvement Plan (QIP) – Based on the results of a determination made under 40 CFR §64.7(d)(2) (permit condition 14.2.9.b), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e). Refer to permit condition 14.5.2.c for the reporting required when a QIP is implemented.
[40 CFR § 64.8; 45CSR§30-5.1.c.]

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9

evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
b. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the guaranteed collection efficiencies of the control devices listed in Section 14.1.3.
c. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall keep a record of all maintenance work performed on the control devices listed in Section 14.1.3.
d. To demonstrate compliance with Section 14.1.4., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and twelve-month-rolling totals of scrap metal processing rates for the equipment listed in Section 14.1.4.
e. To demonstrate compliance with Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and time of operation of the control devices listed in Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.2. Equipment Maintenance Records. The permittee shall maintain maintenance records relating to failure and/or repair of process equipment covered in this permit. In the event of equipment or system failure, these records shall document the permittee's efforts to maintain proper and effective operation of such equipment and/or systems.
[45CSR13 - Permit R13-2532]

14.4.4. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13 - Permit R13-2532]

14.4.5. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13 - Permit R13-2532, Condition 5.4.3.]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.4.7. For the purpose of demonstrating compliance with Conditions 14.1.15. and 14.2.1, the permittee shall maintain records of the times and duration of all excursions as defined in Condition14.2.8.
[45CSR§30-5.1.c. and 40 C.F.R. § 64.6 (c)]

14.4.8. For the purpose of demonstrating compliance Conditions 14.1.15. and 14.2.1, the permittee shall maintain records of thermocouple validation checks conducted in accordance with Condition 14.2.1.
[45CSR§30-5.1.c. and 40 C.F.R. § 64.6 (c)]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

14.5.2. General reporting requirements for CAM. A report for monitoring under 40 C.F.R. Part 64 shall include the following information as applicable:
a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
b. 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 daily calibration checks, if applicable); and
c. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. § 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
[40 C.F.R. § 64.9 (a) (2)]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-7B-P	Rotary Kiln 1 Burners	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, the rotary kiln will be indirectly heated by four 0.5 MMBtu/hr natural gas burners. The burners associated with each kiln will have their own exhaust stack to atmosphere, separate from the exhaust from the kilns themselves.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 2.0 MMBtu/hr	**Type and Btu/hr rating of burners:** 4 Burners at 0.5 MMBtu/hr each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline natural gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	1,031
Carbon Monoxide (CO)	--	0.72
Nitrogen Oxides (NO_X)	--	0.86
Lead (Pb)	--	4.3E-06
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.07
Total Particulate Matter (TSP)	--	0.07
Sulfur Dioxide (SO_2)	--	5.2E-03
Volatile Organic Compounds (VOC)	--	0.05
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	2.1E-07
3-Methylchloranthrene	--	1.5E-08
7,12-Dimethylbenz(a)anthracene	--	1.4E-07
Acenaphthene	--	1.5E-08
Acenaphthylene	--	1.5E-08
Anthracene	--	2.1E-08
Benzene	--	1.8E-05
Benzo(a)anthracene	--	1.5E-08
Benzo(a)pyrene	--	1.0E-08
Benzo(b)fluoranthene	--	1.5E-08
Benzo(g,h,i)perylene	--	1.0E-08
Benzo(k)fluoranthene	--	1.5E-08
Chrysene	--	1.5E-08
Dibenzo(a,h)anthracene	--	1.0E-08
Dichlorobenzene	--	1.0E-05
Fluoranthene	--	2.6E-08
Fluorene	--	2.4E-08
Formaldehyde	--	6.4E-04
Hexane	--	0.02
Indenol(1,2,3,c,d)pyrene	--	1.5E-08

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	5.2E-06
Phenanthrene	--	1.5E-07
Pyrene	--	4.3E-08
Toluene	--	2.9E-05
Arsenic	--	1.7E-06
Beryllium	--	1.0E-07
Cadmium	--	9.4E-06
Chromium	--	1.2E-05
Cobalt	--	7.2E-07
Manganese	--	3.3E-06
Mercury	--	2.2E-06
Nickel	--	1.8E-05
Selenium	--	2.1E-07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.7. Maximum DHI Rates - NG Burner Equipment. The following burner equipment shall combust only natural gas and shall not exceed the maximum design heat input (DHI) rates given below:

Emission Unit ID	Emission Point ID	Equipment Piece	Maximum DHI Rate (MM Btu/hr)
TP-7B-P	TP-7B-S	Rotary Kiln 1 Burner Set (4 Burners/Set)	2.0

[45CSR13 - Permit R13-2532]

14.1.12. Emission Points TP-7B-P and TP-8B-P – Kiln Burners – NG Combustion Emissions. Each of the two (2) emission points (TP-7B-S and TP-8B-S) associated with the two (2) Rotary Kiln Burner Sets [TP-7B-P and TP-8B-P; four (4) burners per burner set; each burner set providing indirect heat to one kiln] shall not exceed the following maximum emission rates:

Pollutant	Max. Emission Rate Per Emission Point	
	(lb/hr)	(ton/yr)
Nitrogen Oxides (NOx)	0.20	0.86
Carbon Monoxide (CO)	0.17	0.72

[45CSR13 - Permit R13-2532]

14.1.16. Fuel Burning Equipment Opacity Limit – NG Burner: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.; 45CSR13 - Permit R13-2532]

14.1.17. Quarterly (every three months) opacity checks shall be performed per the test requirement given in Section 14.3.1. for the fuel burning equipment listed in 14.1.16. above.
[45CSR13 - Permit R13-2532]

14.1.18. Fuel Burning Unit Emission Rate Limitation – NG Burner Equipment: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:
For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in millions B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units.
[45CSR§2-4.1.b]
[45CSR§2-4.1.; 45CSR13 - Permit R13-2532]

14.1.22. Sulfur Dioxide (SO2) In-stack Concentration Limitation – Kiln 1 and Kiln 2 Exhausts.
No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1a.through e.
[45CSR§10-4.1.; 45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
f. To demonstrate compliance with Section 14.1.7., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the maximum design heat input (DHI) rates of the burner equipment listed in Section 14.1.7., and any correspondence sent with regards to changing the DHI rates.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-8B-P	Rotary Kiln 2 Burners	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, the rotary kiln will be indirectly heated by four 0.5 MMBtu/hr natural gas burners. The burners associated with each kiln will have their own exhaust stack to atmosphere, separate from the exhaust from the kilns themselves.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 2.0 MMBtu/hr	**Type and Btu/hr rating of burners:** 4 Burners at 0.5 MMBtu/hr each

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline natural gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	1,031
Carbon Monoxide (CO)	--	0.72
Nitrogen Oxides (NO_X)	--	0.86
Lead (Pb)	--	4.3E-06
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.07
Total Particulate Matter (TSP)	--	0.07
Sulfur Dioxide (SO_2)	--	5.2E-03
Volatile Organic Compounds (VOC)	--	0.05
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	2.1E-07
3-Methylchloranthrene	--	1.5E-08
7,12-Dimethylbenz(a)anthracene	--	1.4E-07
Acenaphthene	--	1.5E-08
Acenaphthylene	--	1.5E-08
Anthracene	--	2.1E-08
Benzene	--	1.8E-05
Benzo(a)anthracene	--	1.5E-08
Benzo(a)pyrene	--	1.0E-08
Benzo(b)fluoranthene	--	1.5E-08
Benzo(g,h,i)perylene	--	1.0E-08
Benzo(k)fluoranthene	--	1.5E-08
Chrysene	--	1.5E-08
Dibenzo(a,h)anthracene	--	1.0E-08
Dichlorobenzene	--	1.0E-05
Fluoranthene	--	2.6E-08
Fluorene	--	2.4E-08
Formaldehyde	--	6.4E-04
Hexane	--	0.02
Indenol(1,2,3,c,d)pyrene	--	1.5E-08

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	5.2E-06
Phenanthrene	--	1.5E-07
Pyrene	--	4.3E-08
Toluene	--	2.9E-05
Arsenic	--	1.7E-06
Beryllium	--	1.0E-07
Cadmium	--	9.4E-06
Chromium	--	1.2E-05
Cobalt	--	7.2E-07
Manganese	--	3.3E-06
Mercury	--	2.2E-06
Nickel	--	1.8E-05
Selenium	--	2.1E-07

Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.7. Maximum DHI Rates - NG Burner Equipment. The following burner equipment shall combust only natural gas and shall not exceed the maximum design heat input (DHI) rates given below:

Emission Unit ID	Emission Point ID	Equipment Piece	Maximum DHI Rate (MM Btu/hr)
TP-8B-P	TP-8B-S	Rotary Kiln 2 Burner Set (4 Burners/Set)	2.0

[45CSR13 - Permit R13-2532]

14.1.12. Emission Points TP-7B-P and TP-8B-P – Kiln Burners – NG Combustion Emissions. Each of the two (2) emission points (TP-7B-S and TP-8B-S) associated with the two (2) Rotary Kiln Burner Sets [TP-7B-P and TP-8B-P; four (4) burners per burner set; each burner set providing indirect heat to one kiln] shall not exceed the following maximum emission rates:

Pollutant	Max. Emission Rate Per Emission Point	
	(lb/hr)	(ton/yr)
Nitrogen Oxides (NOx)	0.20	0.86
Carbon Monoxide (CO)	0.17	0.72

[45CSR13 - Permit R13-2532]

14.1.16. Fuel Burning Equipment Opacity Limit – NG Burner: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.; 45CSR13 - Permit R13-2532]

14.1.17. Quarterly (every three months) opacity checks shall be performed per the test requirement given in Section 14.3.1. for the fuel burning equipment listed in 14.1.16. above.
[45CSR13 - Permit R13-2532]

14.1.18. Fuel Burning Unit Emission Rate Limitation – NG Burner Equipment: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:
For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in millions B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units.
[45CSR§2-4.1.b]
[45CSR§2-4.1.; 45CSR13 - Permit R13-2532]

14.1.22. Sulfur Dioxide (SO2) In-stack Concentration Limitation – Kiln 1 and Kiln 2 Exhausts.
No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1a.through e.
[45CSR§10-4.1.; 45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
f. To demonstrate compliance with Section 14.1.7., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the maximum design heat input (DHI) rates of the burner equipment listed in Section 14.1.7., and any correspondence sent with regards to changing the DHI rates.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-9-P	Crusher	TP-9-C, Electrostatic Precipitator

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, the metal will be reduced into chips by the crusher.

Manufacturer:	**Model number:**	**Serial number:**
American Pulverizer	380-HD	8416
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Metal scrap: 7,040 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)		
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	--	2.30
Total Particulate Matter (TSP)	--	2.30
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	--	056
Nickel	--	1.30
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.3. Control Equipment Guaranteed Collection Efficiencies. The following control equipment shall be installed and shall have at least the guaranteed collection efficiency as listed below:

Control Device ID No.	Control Device	Emission Source	Pollutant Controlled	% Guaranteed Collection Efficiency	Comments
TP-9-C	ESP	Scrap Metal Crusher	PM	88.3	ESP to be online when Crusher is in operation.

[45CSR13 - Permit R13-2532]

14.1.4. Scrap Metal Processing Rates. The following hourly and annual scrap metal processing rates shall not be exceeded:

Equipment Unit ID	Equipment Name/Type	Maximum Processing Rate	
		(lb/hr)	(ton/yr)
TP-9-P	Scrap Metal Crusher	7,040	8,975

[45CSR13 - Permit R13-2532]

14.1.5. Emission Point (TP-9-S) - Crusher PM Controls. The ESP (Control Device TP-9-C) shall be online and good operating condition at all times during the operation of the scrap metal Crusher (Emission Unit TP-9-P).
[45CSR13 - Permit R13-2532, Condition 5.1.5.]

14.1.6. Emission Point (TP-9-S) - Crusher PM Emissions. The emission point (TP-9-S) associated with the Scrap Metal Crusher (Emission Unit TP-9-P) shall not exceed the following maximum emission rates:

Pollutant	Maximum Emission Rate	
	(lb/hr)	(ton/yr)
Particulate Matter (PM)	1.75	2.20
Hazardous Air Pollutants	1.49	1.90

[45CSR13 - Permit R13-2532]

14.1.19. Process Opacity Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 45CSR§§7- 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1.; 45CSR13 - Permit R13-2532]

14.1.20. Quarterly (every three months) opacity checks shall be performed per the test requirements given in Section 14.3.1. for the process equipment listed in 14.1.19. above.
[45CSR13 - Permit R13-2532]

14.1.21. Process PM Emission Weight Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A from 45CSR7.
[45CSR§7-4.1.; 45CSR13 - Permit R13-2532]

14.1.23. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.2.2. The permittee shall visually inspect each particulate matter capture system, points of capture or collection; filter vents, ducts, connections, housings and associated air pollution control devices for malfunction, leaks and effective operation every three (3) calendar months. The permittee shall perform preventive or corrective action as expeditiously as possible to ensure particulate matter capture system integrity and effective operation. Records of such inspection shall be maintained in accordance with Section 3.4.2. of this permit.
[45CSR13 - Permit R13-2532]

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
b. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the guaranteed collection efficiencies of the control devices listed in Section 14.1.3.
c. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall keep a record of all maintenance work performed on the control devices listed in Section 14.1.3.
d. To demonstrate compliance with Section 14.1.4., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and twelve-month-rolling totals of scrap metal processing rates for the equipment listed in Section 14.1.4.
e. To demonstrate compliance with Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and time of operation of the control devices listed in Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.2. Equipment Maintenance Records. The permittee shall maintain maintenance records relating to failure and/or repair of process equipment covered in this permit. In the event of equipment or system failure, these records shall document the permittee's efforts to maintain proper and effective operation of such equipment and/or systems.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.4. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13 - Permit R13-2532]

14.4.5. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13 - Permit R13-2532, Condition 5.4.3.]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-10-P	Shot/Tumble Blaster	TP-10-C, Baghouse

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycle process, if needed, the scrap metal will be cleaned the shot blaster which will remove any surface of oxides or surface impurities.

Manufacturer:	**Model number:**	**Serial number:**
Wheelabrator	GN34	

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2015	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Metal Scrap: m15,000 lbs/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		0.05
Total Particulate Matter (TSP)		0.05
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium		2.4E-03
Nickel		5.8E-03
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emission factor from data collected at another Special Metals facility.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.3. Control Equipment Guaranteed Collection Efficiencies. The following control equipment shall be installed and shall have at least the guaranteed collection efficiency as listed below:

Control Device ID No.	Control Device	Emission Source	Pollutant Controlled	% Guaranteed Collection Efficiency	Comments
TP-10-C	Baghouse	Shot Blaster	PM	99.9	Baghouse to be online when Shot Blaster is in operation.

[45CSR13 - Permit R13-2532]

14.1.4. Scrap Metal Processing Rates. The following hourly and annual scrap metal processing rates shall not be exceeded:

Equipment Unit ID	Equipment Name/Type	Maximum Processing Rate	
		(lb/hr)	(ton/yr)
TP-10-P	Shot/ Tumble Blaster	15,000	3,000

[45CSR13 - Permit R13-2532]

14.1.10. Emission Point TP-10-P - Shot Blast PM Controls. The Baghouse (Control Device TP-10-C) shall be online and good operating condition at all times during the operation of the Shot Blaster (Emission Unit TP-10-P).
[45CSR13 - Permit R13-2532]

14.1.11. Emission Point TP-10-P - Shot Blast PM Emissions. Emission point (TP-10-S) associated with the Shot Blaster (Emission Unit TP-10-P) shall not exceed the following maximum emission rates:

Pollutant	Maximum Emission Rate	
	(lb/hr)	(ton/yr)
Particulate Matter (PM)	0.26	0.05
Hazardous Air Pollutants	0.04	0.01

[45CSR13 - Permit R13-2532]

14.1.19. Process Opacity Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 45CSR§§7- 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1.; 45CSR13 - Permit R13-2532]

14.1.20. Quarterly (every three months) opacity checks shall be performed per the test requirements given in Section 14.3.1. for the process equipment listed in 14.1.19. above.
[45CSR13 - Permit R13-2532]

14.1.21. Process PM Emission Weight Limitation – Plasma Cutter, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A from 45CSR7.
[45CSR§7-4.1.; 45CSR13 - Permit R13-2532]

14.1.23. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent

practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.2.3. The permittee shall visually inspect the operation of each exterior baghouse cleaning system mechanism, interior cleaning equipment and the clean side of bags for evidence of leaks or failure once every thirty (30) calendar days of operation. The permittee shall perform preventive or corrective action as expeditiously as possible to ensure effective operation of baghouse cleaning system mechanism, interior cleaning equipment and filter fabric integrity. The permittee shall record the date of such inspections and document any baghouse cleaning system repair, filter fabric replacement, preventive or corrective action taken. Records of such inspection shall be maintained in accordance with Section 3.4.2. of this permit.
[45CSR13 - Permit R13-2532]

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
b. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the guaranteed collection efficiencies of the control devices listed in Section 14.1.3.
c. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall keep a record of all maintenance work performed on the control devices listed in Section 14.1.3.
d. To demonstrate compliance with Section 14.1.4., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and twelve-month-rolling totals of scrap metal processing rates for the equipment listed in Section 14.1.4.
e. To demonstrate compliance with Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and time of operation of the control devices listed in Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.2. Equipment Maintenance Records. The permittee shall maintain maintenance records relating to failure and/or repair of process equipment covered in this permit. In the event of equipment or system failure, these records shall document the permittee's efforts to maintain proper and effective operation of such equipment and/or systems.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.4. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13 - Permit R13-2532]

14.4.5. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13 - Permit R13-2532, Condition 5.4.3.]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-11-P	Wash Water Burner	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, to reduce the quantity of dirt, oil, and grease introduced into the kilns along with the scrap metal, a raw material wash system cleans the metal. The wash water is heated before use by natural gas burners. This burner has a separate exhaust stack.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 0.83 MMBtu/hr	**Type and Btu/hr rating of burners:** Eclipse IJ-II high efficiency (>80%) nozzle mixing power burner (0.83 MMBtu/hr).

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	428
Carbon Monoxide (CO)	--	0.30
Nitrogen Oxides (NO_X)	--	0.36
Lead (Pb)	--	1.8E-06
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.03
Total Particulate Matter (TSP)	--	0.03
Sulfur Dioxide (SO_2)	--	2.1E-03
Volatile Organic Compounds (VOC)	--	0.02
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	8.6E-08
3-Methylchloranthrene	--	6.4E-09
7,12-Dimethylbenz(a)anthracene	--	5.7E-08
Acenaphthene	--	6.4E-09
Acenaphthylene	--	6.4E-09
Anthracene	--	8.6E-09
Benzene	--	7.5E-06
Benzo(a)anthracene	--	6.4E-09
Benzo(a)pyrene	--	4.3E-09
Benzo(b)fluoranthene	--	6.4E-09
Benzo(g,h,i)perylene	--	4.3E-09
Benzo(k)fluoranthene	--	6.4E-09
Chrysene	--	6.4E-09
Dibenzo(a,h)anthracene	--	4.3E-09
Dichlorobenzene	--	4.3E-06
Fluoranthene	--	1.1E-08
Fluorene	--	1.0E-08
Formaldehyde	--	2.7E-04
Hexane	--	6.4E-03
Indenol(1,2,3,c,d)pyrene	--	6.4E-09

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	2.2E-06
Phenanthrene	--	6.1E-08
Pyrene	--	1.8E-08
Toluene	--	1.2E-05
Arsenic	--	7.1E-07
Beryllium	--	4.3E-08
Cadmium	--	3.9E-06
Chromium	--	5.0E-06
Cobalt	--	3.0E-07
Manganese	--	1.4E-06
Mercury	--	9.3E-07
Nickel	--	7.5E-06
Selenium	--	8.6E-08
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.7. Maximum DHI Rates - NG Burner Equipment. The following burner equipment shall combust only natural gas and shall not exceed the maximum design heat input (DHI) rates given below:

Emission Unit ID	Emission Point ID	Equipment Piece	Maximum DHI Rate (MM Btu/hr)
TP-11-P	TP-11-S	Wash Water Burner	0.83

[45CSR13 - Permit R13-2532]

14.1.8. Emission Point (TP-11-S) - Water Wash Burner – NG Combustion Emissions. Emission point (TP-11-S) associated with the Water Wash Burner (Emission Unit TP-11-P) shall not exceed the following maximum emission rates:

Pollutant	Max. Emission Rate Per Emission Point	
	(lb/hr)	(ton/yr)
Nitrogen Oxides (NOx)	0.09	0.36
Carbon Monoxide (CO)	0.07	0.30

[45CSR13 - Permit R13-2532]

14.1.16. Fuel Burning Equipment Opacity Limit – NG Burner: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.; 45CSR13 - Permit R13-2532]

14.1.17. Quarterly (every three months) opacity checks shall be performed per the test requirement given in Section 14.3.1. for the fuel burning equipment listed in 14.1.16. above.
[45CSR13 - Permit R13-2532]

14.1.18. Fuel Burning Unit Emission Rate Limitation – NG Burner Equipment: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:
For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in millions B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units.
[45CSR§2-4.1.b]
[45CSR§2-4.1.; 45CSR13 - Permit R13-2532]

14.1.22. Sulfur Dioxide (SO2) In-stack Concentration Limitation – Kiln 1 and Kiln 2 Exhausts.
No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1a.through e.
[45CSR§10-4.1.; 45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
f. To demonstrate compliance with Section 14.1.7., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the maximum design heat input (DHI) rates of the burner equipment listed in Section 14.1.7., and any correspondence sent with regards to changing the DHI rates.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-12-P	Rinse Water Burner	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
In the scrap metal recycling process, to reduce the quantity of dirt, oil, and grease introduced into the kilns along with the scrap metal, a raw material wash and rinse system cleans the metal. The rinse water is heated before use by natural gas burners. This burner has a separate exhaust stack.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2011	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 0.44 MMBtu/hr	**Type and Btu/hr rating of burners:** Eclipse IJ-II high efficiency (>80%) nozzle mixing power burner (0.44 MMBtu/hr).

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	5.0	0	1050

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	--	227
Carbon Monoxide (CO)	--	0.16
Nitrogen Oxides (NO_X)	--	0.19
Lead (Pb)	--	9.4E-07
Particulate Matter ($PM_{2.5}$)	--	--
Particulate Matter (PM_{10})	--	0.01
Total Particulate Matter (TSP)	--	0.01
Sulfur Dioxide (SO_2)	--	1.1E-03
Volatile Organic Compounds (VOC)	--	0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
2-Methylnapthalene	--	4.5E-08
3-Methylchloranthrene	--	3.4E-09
7,12-Dimethylbenz(a)anthracene	--	3.0E-08
Acenaphthene	--	3.4E-09
Acenaphthylene	--	3.4E-09
Anthracene	--	4.5E-09
Benzene	--	4.0E-06
Benzo(a)anthracene	--	3.4E-09
Benzo(a)pyrene	--	2.3E-09
Benzo(b)fluoranthene	--	3.4E-09
Benzo(g,h,i)perylene	--	2.3E-09
Benzo(k)fluoranthene	--	3.4E-09
Chrysene	--	3.4E-09
Dibenzo(a,h)anthracene	--	2.3E-09
Dichlorobenzene	--	2.3E-06
Fluoranthene	--	5.7E-09
Fluorene	--	5.3E-09
Formaldehyde	--	1.4E-04
Hexane	--	3.4E-03
Indenol(1,2,3,c,d)pyrene	--	3.4E-09

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Naphthalene	--	1.2E-06
Phenanthrene	--	3.2E-08
Pyrene	--	9.4E-09
Toluene	--	6.4E-06
Arsenic	--	3.8E-07
Beryllium	--	2.3E-08
Cadmium	--	2.1E-06
Chromium	--	2.6E-06
Cobalt	--	1.6E-07
Manganese	--	7.2E-07
Mercury	--	4.9E-07
Nickel	--	4.0E-06
Selenium	--	4.5E-08
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.7. Maximum DHI Rates - NG Burner Equipment. The following burner equipment shall combust only natural gas and shall not exceed the maximum design heat input (DHI) rates given below:

Emission Unit ID	Emission Point ID	Equipment Piece	Maximum DHI Rate (MM Btu/hr)
TP-12-P	TP-12-S	Rinse Water Burner	0.44

[45CSR13 - Permit R13-2532]

14.1.9. Emission Point (TP-12-S) - Rinse Water Burner – NG Combustion Emissions. Emission point (TP-12-S) associated with the Rinse Wash Burner (Emission Unit TP-12-P) shall not exceed the following maximum emission rates:

Pollutant	Max. Emission Rate Per Emission Point	
	(lb/hr)	(ton/yr)
Nitrogen Oxides (NOx)	0.05	0.19
Carbon Monoxide (CO)	0.04	0.16

[45CSR13 - Permit R13-2532]

14.1.16. Fuel Burning Equipment Opacity Limit – NG Burner: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.; 45CSR13 - Permit R13-2532]

14.1.17. Quarterly (every three months) opacity checks shall be performed per the test requirement given in Section 14.3.1. for the fuel burning equipment listed in 14.1.16. above.
[45CSR13 - Permit R13-2532]

14.1.18. Fuel Burning Unit Emission Rate Limitation – NG Burner Equipment: Wash Water, Rinse Water, Kiln 1, Kiln 2.
No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:
For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in millions B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units.
[45CSR§2-4.1.b]
[45CSR§2-4.1.; 45CSR13 - Permit R13-2532]

14.1.22. Sulfur Dioxide (SO2) In-stack Concentration Limitation – Kiln 1 and Kiln 2 Exhausts.
No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1a.through e.
[45CSR§10-4.1.; 45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
f. To demonstrate compliance with Section 14.1.7., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the maximum design heat input (DHI) rates of the burner equipment listed in Section 14.1.7., and any correspondence sent with regards to changing the DHI rates.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TP-19-P	Viking Belt Blaster	TP-19-C Internal Baghouse

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Manufacturer:	**Model number:**	**Serial number:**
Viking	600	
Construction date:	**Installation date:**	**Modification date(s):**
2016		

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Metal Scrap: 600lbs/day

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __x_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	.05	.19
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Chromium	0.01	0.0025
Nickel	0.024	0.006
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Air pollutant emission rates based on calculated based on hourly and annual scrap metal processing rates.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

14.1.3. Control Equipment Guaranteed Collection Efficiencies. The following control equipment shall be installed and shall have at least the guaranteed collection efficiency as listed below:

Control Device ID No.	Control Device	Emissions Source	Pollutant Controlled	% Guaranteed Collection Efficiency	Comments
TP-19-C	Internal Baghouse	Belt Blaster	PM	99.9	Baghouse to be online when Blaster in Operation

[45CSR13 - Permit R13-2532]

14.1.4. Scrap Metal Processing Rates. The following hourly and annual scrap metal processing rates shall not be exceeded:

Equipment Unit ID	Equipment Name/Type	Maximum Processing Rate	
		(lbs/hr)	(ton/yr)
TP-19-P	Viking Belt Blaster	600	109.5

[45CSR13 - Permit R13-2532]

14.1.10. Emission Point TP-19-P – Viking Belt Blaster PM Controls. The Baghouse (Control Device TP-19-C) shall be online and good operating condition at all times during the operation of the Belt Blaster (Emission Unit TP-19-P).
[45CSR13 - Permit R13-2532]

14.1.11. Emission Point TP-19-P – Belt Blaster PM Emissions. Emission point (TP-19-S) associated with the Viking Belt Blaster (Emission Unit TP-19-P) shall not exceed the following maximum emission rates:

Pollutant	Maximum Emission Rate	
	(lb/yr)	(ton/yr)
Particulate Matter	.05	.19
Hazardous Air Pollutants	0.04	0.01

[45CSR13 - Permit R13-2532]

14.1.19. Process Opacity Limitation – Plasma Cutter, Belt Blaster, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 45CSR§§7- 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1.; 45CSR13 - Permit R13-2532]

14.1.20. Quarterly (every three months) opacity checks shall be performed per the test requirements given in Section 14.3.1. for the process equipment listed in 14.1.19. above.
[45CSR13 - Permit R13-2532]

14.1.21. Process PM Emission Weight Limitation – Plasma Cutter, Belt Blaster, Crusher, Shot Blaster, Kiln 1, and Kiln 2.
No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A from 45CSR7.

[45CSR§7-4.1.; 45CSR13 - Permit R13-2532]
14.1.23. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent

practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - Permit R13-2532]

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

14.2.3. The permittee shall visually inspect the operation of each exterior baghouse cleaning system mechanism, interior cleaning equipment and the clean side of bags for evidence of leaks or failure once every thirty (30) calendar days of operation. The permittee shall perform preventive or corrective action as expeditiously as possible to ensure effective operation of baghouse cleaning system mechanism, interior cleaning equipment and filter fabric integrity. The permittee shall record the date of such inspections and document any baghouse cleaning system repair, filter fabric replacement, preventive or corrective action taken. Records of such inspection shall be maintained in accordance with Section 3.4.2. of this permit.
[45CSR13 - Permit R13-2532]

14.3.1. Opacity Testing. To demonstrate compliance with the opacity requirements in Section 14.1.17. (10% opacity or less) and in Section 14.1.20. (20% opacity or less), the permittee shall conduct quarterly (every 3 months) emission observations in accordance with Method 22 of 40 CFR 60, Appendix A. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the emission points have visible emissions using the procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the testing survey, the permittee shall conduct an opacity evaluation in accordance with 40 CFR 60, Appendix A, Method 9, within 24 hours. A 40 CFR 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the emission source(s) is/are operated at normal operating conditions with no visible emission being observed.
[45CSR13 - Permit R13-2532]

14.4.1. Records, Operation and Compliance.
b. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall maintain copies of vendor information detailing the guaranteed collection efficiencies of the control devices listed in Section 14.1.3.
c. To demonstrate compliance with Section 14.1.3., a person designated by a Responsible Official or Authorized Representative shall keep a record of all maintenance work performed on the control devices listed in Section 14.1.3.
d. To demonstrate compliance with Section 14.1.4., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and twelve-month-rolling totals of scrap metal processing rates for the equipment listed in Section 14.1.4.
e. To demonstrate compliance with Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14., a person designated by a Responsible Official or Authorized Representative shall maintain a record of hours of operation and time of operation of the control devices listed in Sections 14.1.5., 14.1.10., 14.1.13., and 14.1.14.
g. All records required by this permit shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit R13-2532]

14.4.2. Equipment Maintenance Records. The permittee shall maintain maintenance records relating to failure and/or repair of process equipment covered in this permit. In the event of equipment or system failure, these records shall document the permittee's efforts to maintain proper and effective operation of such equipment and/or systems.
[45CSR13 - Permit R13-2532]

14.4.3. Certification of Information. Any application form, report, or compliance certification required by this permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and beliefs formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[45CSR13 - Permit R13-2532]

14.4.4. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13 - Permit R13-2532]

14.4.5. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13 - Permit R13-2532, Condition 5.4.3.]

14.4.6. Opacity Records. The permittee shall maintain records of the monitoring data required in Sections 14.1.17. and 14.1.20., documenting the date and time of each visible emission check, the emission point or equipment /source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.
The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission source out of service during the normal quarterly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13 - Permit R13-2532]

14.5.1. Upon observing visible emissions in excess of the opacity limitations, the permittee shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said opacity reading.
[45CSR13 - Permit R13-2532]

Are you in compliance with all applicable requirements for this emission unit? _x__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT F

Schedule of Compliance Form

Attachment F
Schedule of Compliance

The facility is in compliance with all applicable requirements, therefore, a Schedule of Compliance Form is not provided.

ATTACHMENT G

Air Pollution Control Device Forms

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: MS-1-C1	**List all emission units associated with this control device.** MS-1D, #4 EAF MS-1B, #5 EAF MS-1A, AOD Reactor MS-1E-P, Wire Feeder	
Manufacturer: Wheelabrator	**Model number:** 366	**Installation date:** MM/DD/1965

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

175,000 cfm; 6" W.C. pressure drop; Reverse Air Cleaning; 864 bags, 11.5" dia. x 30.5 ft. lg.; 79,488 sq. ft. cloth area; air-to-cloth 2.2; 180 deg. F max. temp.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission Units installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Pressure drop checked daily, if average below 2" or exceeds 8", excursion has occurred and corrective action will be taken.

Weekly inspection by qualified personnel.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: MS-1-C2	**List all emission units associated with this control device.** MS-1D, #4 EAF MS-1B, #5 EAF MS-1A, AOD Reactor MS-1E-P, Wire Feeder	
Manufacturer: Wheelabrator	**Model number:** 168 Jet III	**Installation date:** MM/DD/1999

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		99.7%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

350,000 cfm; 8" W.C. pressure drop; Pulse Jet Cleaning; 4,104 bags, 6" dia. x 14 ft. lg.; 93,648 sq. ft. cloth area; air-to-cloth 3.75; 180 deg. F temp.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission Units installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Pressure drop checked daily, if average below 2" or exceeds 8", excursion has occurred and corrective action will be taken.

Weekly inspection by qualified personnel.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: MS-2-C	**List all emission units associated with this control device.** MS-2, Powder Torch	
Manufacturer: Wheelabrator Canada Inc.	**Model number:** 168 TA-SB, Series 6P	**Installation date:** MM/DD/1997

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Metal Oxide Fume		1.0 gr/dscf emissions

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Flow rate 70,000 ACFM; 765 bags; 6" dia. x 168" long; 215°F Max Temp; 4.01 Air to Cloth Ratio

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission unit was installed in 1962.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Pressure drop checked daily, if average below 2" or exceeds 8", excursion has occurred and corrective action will be taken.

Weekly inspection by qualified personnel.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: MS-9-C	**List all emission units associated with this control device.** MS-9-P, Lime Storage Silo	
Manufacturer: Carborundum	**Model number:** 300 CN 2	**Installation date:** MM/DD/1975

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

1,200 cfm rated ; Shaker Cleaning; 300 sq. ft. cloth area; air-to-cloth 4; ambient temp.; physical size 4 ft x 4 ft x 6 ft ht.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission Unit installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-4-C	**List all emission units associated with this control device.** PM-4-P, PMD Grit Blaster Machine	
Manufacturer: Pangbourne	**Model number:** 126 D	**Installation date:** 1965

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM-Metals		95.5%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

5880 CFM @ 6" S.P.; 168 Bags x 5" Dia x 126"; Ambient Air

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-5-C	**List all emission units associated with this control device.** PM-5-P, Southeast Grinder	
Manufacturer: Pangborn Corp.	**Model number:** C150	**Installation date:** MM/DD/1967

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

38,000 CFM @ 7" SP; 150 bags; Cloth area/bag 83 ft^2; Temp. <100°F; Shaker style cleaning;

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-6-C & PM-25-C	**List all emission units associated with this control device.** PM-25-P, Southcentral Grinder PM-6-P, Southwest grinder	
Manufacturer: Pangborn Corp.	**Model number:** C150	**Installation date:** MM/DD/1967

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

38,000 CFM @ 7" SP; 150 bags; Cloth area/bag 83 ft^2; Temp. <100°F; Shaker style cleaning;

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-7-C	**List all emission units associated with this control device.** PM-7-P, Northeast Grinder	
Manufacturer: Pangborn Corp.	**Model number:** C150	**Installation date:** MM/DD/1967

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

38,000 CFM @ 7" SP; 150 bags; Cloth area/bag 83 ft^2; Temp. <100°F; Shaker style cleaning;

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-8A-C	**List all emission units associated with this control device.** PM-8-P, North-West Grinder	
Manufacturer: Mikropul	**Model number:** 144-12-20 TRMC	**Installation date:** 08/01 /2008

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	__X_ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM (Nickel alloy dust)		>98%
PM (Titanium dust)		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

20,000 ACFM @ 4.5" SP; 144 bags per section; four sections total, three active sections, one cleaning section; Cloth area/section 8144ft^2; Temp. <100°F; Pulse Jet continuous cleaning;

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission Unit Installed before 1966.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-8B-C	**List all emission units associated with this control device.** PM-8-P, North-West Grinder	
Manufacturer: U.S. Air Filtration	**Model number:** 1010-WPT-144-6	**Installation date:** 08/15/2008

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM (Nickel alloy dust)		>98%
PM (Titanium dust)		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

12,500 cfm @ 5" max S.P. ΔP across bags, Pulse jet , 275 °F maximum operating temperature
Fan ratio @ 12,500 cfm @ 20" S.P. W.G.
Total 300 bags (6" x 144") for total cloth (16 oz polyester)
Area = 5,655 sq ft, 2.21:1 air to cloth ratio

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission Unit Installed before 1966.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-26-C	**List all emission units associated with this control device.** PM-26-P, North-Central Grinder	
Manufacturer: Pangborn Corp.	**Model number:** C150	**Installation date:** MM/DD/1967

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

38,000 CFM @ 7" SP; 150 bags; Cloth area/bag 83 ft^2; Temp. <100°F; Shaker style cleaning;

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: PM-20-C	**List all emission units associated with this control device.** PM-20-P, PM Plate Plasma Torch	
Manufacturer: American Air Filter	**Model number:** Model 2	**Installation date:** 10/15/1989

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Dust collector system consists of two hoods which collect the particulate produced from the process operation. Flow rate 3600 ft^3/min; Average pressure drop 5 inches;
2.25" X 6' Polyester Bags; Air to cloth ratio 4; filtering area 900 ft^2; Pulse Jet cleaning method;
Temperature is ambient.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: SM-1-C	**List all emission units associated with this control device.** SM-1-P, Continuous Anneal & Pickle Line (CAP)	
Manufacturer: HEIL® Process Equipment	**Model number:** 738	**Installation date:** 10/01/1984

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	_X_ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	_X_ Other (describe) Mist Eliminator
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Acid Mist		95% of Mist / 99% Fumes

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Flow Rate 23,200 cfm; Pressure drop 3 inches; Packing Size 2 inches; Packing Depth 5.5 feet; Scrubber Solution Water; Solution circulation rate 350 gpm;

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** CAP Line Emissions Unit was installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: SM-2-C	**List all emission units associated with this control device.** SM-2-P, CAP Line Shot Blaster	
Manufacturer: American Air Filter	**Model number:** Type N Size 46	**Installation date:** 1966

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	_X_ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM- Metals		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

11,000 CFM @ 2.8" S.P. Rotoclone Wet Scrubber. Ambient Temperature

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.
Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

Water level and fan operation monitored continuously. Water level switch checked quarterly and fan operation monitor checked daily.

Daily and monthly inspection of scrubber system in accordance of P/M checklist.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: SM-3-C	**List all emission units associated with this control device.** SM-3-P, MKW Rolling Mill	
Manufacturer: American Air Filter	**Model number:** Rotoclone 1656297-7	**Installation date:** 1967

Type of Air Pollution Control Device:

__ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	_X_ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

24" Rotoclone with 20 horsepower, 1775 RPM Motor. Ambient Air Temp

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification. Installed before 1974.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: SM-4-C	**List all emission units associated with this control device.** SM-4-P, United Mill	
Manufacturer: Buffalo	**Model number:** 980	**Installation date:** 1967

Type of Air Pollution Control Device:

__ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	__ _Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	_X__ Other (describe) Fan Only_
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Water Coolant Mist		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Centrifuge Fan with 40 horsepower, 1775 RPM Motor. Ambient Air Temp

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: SM-10-C	**List all emission units associated with this control device.** SM-10-P, Strip Mill #2 CBU Grinder	
Manufacturer: Dracco-Fuller	**Model number:** Mark II	**Installation date:** 1965

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
TPM- Metals		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

9,000 CFM @ 14" S.P. Fan; 3.5" Delta P Max; 56 Bags x 139"lb

(Returns filtered air to building on outdoors MR 2144) W1damper control

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CS-1-C	**List all emission units associated with this control device.** CS-1-P, Schluter Grinder	
Manufacturer: W. W.Sly	**Model number:** 51-360	**Installation date:** MM/DD/1964

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

13,212 cfm; Shaker Cleaning; 186 bags, 3,360 sq. ft. cloth area; air-to-cloth 3.9; ambient temp.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission unit installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CS-2-C	**List all emission units associated with this control device.** CS-2-P, Norton Grinder	
Manufacturer: W. W.Sly	**Model number:** 51-360	**Installation date:** MM/DD/1964

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

13,212 cfm; Shaker Cleaning; 186 bags, 3,360 sq. ft. cloth area; air-to-cloth 3.9; ambient temp.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification. Emission unit installed before 1974.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CS-3-C	**List all emission units associated with this control device.** CS-3-P, #1 Centro-Maskin Grinder	
Manufacturer: W. W. Sly	**Model number:** 51-360	**Installation date:** MM/DD/1966

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

13,212 cfm; Shaker Cleaning; 186 bags, 3,360 sq. ft. cloth area; air-to-cloth 3.9; ambient temp.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission unit installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CS-4-C	**List all emission units associated with this control device.** CS-4-P, #2 Centro-Maskin Grinder	
Manufacturer: W. W. Sly	**Model number:** 51-360	**Installation date:** MM/DD/1967

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

13,212 cfm; Shaker Cleaning; 186 bags, 3,360 sq. ft. cloth area; air-to-cloth 3.9; ambient temp.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Emission unit installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: BW-10-C	**List all emission units associated with this control device.** BW-10-P, Bar & Wire Mill Scholle Saw	
Manufacturer: Wheelabrator Corp.Uni-Wash, Inc.	**Model number:** 108-6P	**Installation date:** MM/DD/2005 Moved

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber (Mist)	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	_X_ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM & Metals		99.5 %

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

4300 CFM @ 11" SP; 1142 SQ. Ft. Cloth 81 Bags 6" X 108"; 285 Degree F Max. Temp.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Saw installed before 1970.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: BW-11-C	**List all emission units associated with this control device.** BW-11-P	
Manufacturer:	**Model number:**	**Installation date:** MM/DD/YYYY

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CD-17-C	**List all emission units associated with this control device.** CD-17-P, East Cutters (3 saws)	
Manufacturer:	**Model number:**	**Installation date:** MM/DD/YYYY

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CD-23-C	**List all emission units associated with this control device.** CD-23-P, CD West Cutters Baghouse	
Manufacturer: Floair	**Model number:**	**Installation date:** 1970

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber (Mist)	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
TPM-Metals		>98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

2919 CFM @ 12.5" S.P.; Ambient Temperature

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Installed before 1974.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CD-38-C	**List all emission units associated with this control device.** CD-38-P, Fugitive Ammonia Fumes from West Pickle Tank #11	
Manufacturer: HEIL® Process Equipment	**Model number:** 7311-SP	**Installation date:** MM/DD/2001

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	_X_ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Ammonium Sulfate $(NH_4)_2SO_4$	95%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Flow Rate 50,000 cfm; Average pressure drop 3 inches; Packing Size 3.5 inches' Packing Depth 10 feet; Scrubber Solution pH 2.0 SU Sulfuric Acid; Solution circulation rate 600 gpm;

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** West Pickle Tank was installed in 1958.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CD-40-C	**List all emission units associated with this control device.** CD-40-P, Centro-Metalcut Type CAC 1220 Abrasive Saw	
Manufacturer: Agent Manufacturing	**Model number:** FT88-D1 (baghouse) 80SN70-D2 (cyclone)	**Installation date:** MM/DD/2010

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	_X_ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		>95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cyclone: 28" length, 36" diameter, 6,000 acfm max at 68°F and 14.7 psia

Baghouse: mechanical shaker, 88 bags (5" diameter x 7.5' length), 842 ft^2 total cloth area, 5.93:1 air to cloth ratio, 5,000 acfm max at 68°F and 14.7 psia

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

Visually inspect control device every 3 months.

Visually inspect baghouse exterior and interior bags for leaks or failure every 30 calendar days.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: SC-2-C	**List all emission units associated with this control device.** SC-2-P, Service Center Saw	
Manufacturer: Uni-Wash, Inc.	**Model number:** MM-4000	**Installation date:** MM/DD/1970

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	_X_ Other Wet Scrubber (Mist)	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
TPM		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Fan 2,000CFM @ 10" SP; Drop-out Box by Airpro; Metal Mesh 24" X 24" X 1" Pre-filter; VEE Bag 10 Pocket Filter – 95% Collapsible Borosilicate Glass; 4" Mist Eliminator Pack

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Saw installed before 1970.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Weekly Method 22 visual emissions checks. If no visible emissions observed after two weeks, monthly Method 22 checks. If no visible emission observed after 4 months, quarterly Method 22 checks. If visible emissions are observed, check will revert back to smaller time period.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-7A-1C, Cyclone for Kiln 1	**List all emission units associated with this control device.** TP-7A-P , Rotary Borings Kiln 1	
Manufacturer: EnviroAir Inc.	**Model number:** Unknown	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	_X_ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Dry cyclone
3,000 acfm at 350 °F

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Cyclone will be visually inspected every 3 months. Preventative or corrective action will be completed as expeditiously as possible.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-7A-2C Thermal Oxidizer for Kiln 1	**List all emission units associated with this control device.** TP-7A-P, Rotary Borings Kiln 1	
Manufacturer: Enviro Air, Inc. thermal oxidizer, Maxon Kinemax Burner	**Model number:** Unknown	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
_X_ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

2.0 MMBtu/hr natural gas burner
Typical combustion chamber temperature approximately 1,400 °F
Minimum combustion chamber retention time of 0.6 seconds.
Maximum loading of 80 lbs/hr of organics.

Is this device subject to the CAM requirements of 40 C.F.R. 64? _X_ Yes ___ No

If Yes, **Complete ATTACHMENT H** CAM Plan already approved, therefore Attachment H not included.

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Monitoring of the thermal oxidizer chamber's temperature by a thermocouple.
Continuous measurement and recording of temperature. Temperature checked daily.
Annual validation of accuracy of thermocouple.
Shutdown of the kiln system if it operates below 1,200 °F for 60 minutes or more.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-7A-3C Baghouse for Kiln 1	**List all emission units associated with this control device.** TP-7A-P, Rotary Borings Kiln 1	
Manufacturer: Donaldson Dalamatic	**Model number:** DLMC 1/4/15	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

2,300 acfm gas flow at 350 °F and -0.72 psia
Pulse jet, 645 ft^2 total cloth area

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Baghouse exterior and interior bags will be visually inspected every 30 days. Preventative or corrective action will be completed as expeditiously as possible.

Quarterly Method 22 visual emissions checks.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-8A-1C, Cyclone for Kiln 2	**List all emission units associated with this control device.** TP-8A-P , Rotary Borings Kiln 2	
Manufacturer: EnviroAir Inc.	**Model number:** Unknown	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	_X_ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Dry cyclone
3,000 acfm at 350 °F

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Cyclone will be visually inspected every 3 months. Preventative or corrective action will be completed as expeditiously as possible.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-8A-2C Thermal Oxidizer for Kiln 2	**List all emission units associated with this control device.** TP-8A-P, Rotary Borings Kiln 2	
Manufacturer: Enviro Air, Inc. thermal oxidizer, Maxon Kinemax Burner	**Model number:** Unknown	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
_X_ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

2.0 MMBtu/hr natural gas burner
Typical combustion chamber temperature approximately 1,400 °F
Minimum combustion chamber retention time of 0.6 seconds.
Maximum loading of 80 lbs/hr of organics.

Is this device subject to the CAM requirements of 40 C.F.R. 64? _X_ Yes ___ No

If Yes, **Complete ATTACHMENT H** CAM Plan already approved, therefore Attachment H not included.

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Monitoring of the thermal oxidizer chamber's temperature by a thermocouple.
Continuous measurement and recording of temperature. Temperature checked daily.
Annual validation of accuracy of thermocouple.
Shutdown of the kiln system if it operates below 1,200 °F for 60 minutes or more.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-8A-3C Baghouse for Kiln 2	**List all emission units associated with this control device.** TP-8A-P, Rotary Borings Kiln 2	
Manufacturer: Donaldson Dalamatic	**Model number:** DLMC 1/4/15	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

2,300 acfm gas flow at 350 °F and -0.72 psia
Pulse jet, 645 ft^2 total cloth area

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Baghouse will be visually inspected every 30 days. Preventative or corrective action will be completed as expeditiously as possible.

Quarterly Method 22 visual emissions checks.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-9-C Electrostatic Precipitator	**List all emission units associated with this control device.** TP-9-P, Crusher	
Manufacturer: Horizon International	**Model number:** SEM.132	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		_X_ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		88.3%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

13,200 acfm flow rate, 6 feet/second velocity, 0.4 in H_2O pressure drop
12 Flat plate electrodes, 5 ft verticle height, and 1,560 ft^2 active collecting surface
Manual plate cleaning system

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

ESP will be visually inspected every 3 months. Preventative or corrective action will be completed as expeditiously as possible.

Quarterly Method 22 visual emissions checks

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-10-C	**List all emission units associated with this control device.** TP-1-P, Tumble Blaster (Thistle Processing) TP-6-P, Cabinet Blaster (Thistle Processing) TP-10-P, Shot/Tumble Blaster (Scrap Metal Recycling)	
Manufacturer: Donaldson Dalamatic	**Model number:** DLMC 1/4/15	**Installation date:** MM/DD/2011

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

2,300 acfm at 350 °F and -0.72 psia
Closed suction, Pulse jet, Total cloth area of 645 ft^2

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Differential pressure controller will be monitored.

Baghouse exterior and interior bags will be visually inspected every 30 days. Preventative or corrective action will be completed as expeditiously as possible.

Quarterly Method 22 visual emissions checks.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: TP-19-C Internal Baghouse	**List all emission units associated with this control device.** TP-19-P Viking Belt Blaster	
Manufacturer: Viking	**Model number:** 9-PDC	**Installation date:** MM/DD/2016

Type of Air Pollution Control Device:

_x_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM		99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Closed suction, filter cartridge and Pulse jet
Air consumption is 1.2cubic ft per min @90psi

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _x_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Baghouse will be visually inspected every 30 days. Preventative or corrective action will be completed as expeditiously as possible.

Quarterly Method 22 visual emissions checks.

ATTACHMENT H

Compliance Assurance Monitoring Forms

Attachment H
Compliance Assurance Monitoring

The facility currently has two approved compliance assurance monitoring (CAM) plans for Rotary Borings Kiln 1 Thermal Oxidizer (TP-7A-2C) and Rotary Borings Kiln 2 Thermal Oxidizer (TP-8A-2C). Since CAM does not apply to any other control devices, no CAM forms have been provided.