August 6, 2025

Via email to: dale.fentress@gerdau.com
cory.arnold@gerdau.com & First Class Mail

Dale Fentress
Environmental Manager
Gerdau MacSteel Inc.
P.O. Box 1592
Fort Smith, AR 72902

Re: Notice of Final Permitting Decision; Permit No. 0693-AOP-R15

Dear Mr. Fentress,

After considering the application and other applicable materials as required by APC&EC Rule 8.211 and Ark. Code Ann. § 8-4-101 *et seq*., this notice of final permitting decision is provided for:

Gerdau MacSteel Inc.
5225 Planters Road
Fort Smith, AR 72916

Permit Number: 0693-AOP-R15

Permitting Decision: approval with permit conditions as set forth in final Permit No. 0693-AOP-R15

Accessing the Permitting Decision:
https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0693-AOP-R15.pdf.

Accessing the Statement of Basis:
https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0693-AOP-R15-SOB.pdf.

Rule 26.903 of the Rules of the Arkansas Operating Air Permit Program do not require a public notice or public comment period for Administrative Amendments.

Sincerely,

Demetria Kimbrough
Deputy Director, Office of Air Quality, Division of Environmental Quality
5301 Northshore Drive, North Little Rock, AR 72118-5317

Enclosure: Certificate of Service

CERTIFICATE OF SERVICE

I, Natasha Oates, hereby certify that the final permit decision notice has been mailed by first class mail to Gerdau MacSteel Inc., P.O. Box 1592, Fort Smith, AR, 72902, on this 6th day of August, 2025.

Natasha Oates

Natasha Oates, AA, Office of Air Quality

RESPONSE TO COMMENTS

GERDAU MACSTEEL INC.
PERMIT #0693-AOP-R15
AFIN: 66-00274

On June 1, 2025, the Director of the Arkansas Department of Energy and Environment, Division of Environmental Quality ("Division") gave notice of a draft permitting decision for the above referenced facility. On June 27, 2025, written comments on the draft permitting decision were submitted by Lisa Bowling of Hanner, Spence, and Green on behalf of the facility. The Division's response to these issues follows.

Note: The following page numbers and condition numbers refer to the draft permit. These references may have changed in the final permit based on changes made during the comment period.

Comment #1: Table of Contents, Page 2: Request to add identification information to the Appendices section of the Table
of Contents.

Response: The Division agrees. The requested change was made. Additionally, the Rules and Regulation section was updated. NSPS AAb was added. NSPS Dc was removed as all subject sources were removed with this permit modification.

Comment #2: Process Description, Page 5: The last sentence of the process description on page 5 is incorrect and should be omitted. All EAF and melt shop emissions are not combined in single duct and then split between the two baghouses, SN-01 and SN-12. As addressed in the melt shop source descriptions for SN-01 and SN-12, various hoods and canopies are used to capture and route emissions to either SN-01 or SN-12. For example,
"Emissions from the LMF are captured by the LMF evacuation and ducted to the EAF baghouse (SN-01). Fugitive emissions from the LMF are collected by the melt shop baghouses (SN-01 and SN-12) ."

Response: The sentence was deleted. It was not necessary in the overall facility process description and was covered in the source description for the Melt Shop. The word "fugitive" as used as the example in the comment was removed from the source description and replaced with "other". If the emissions are collected and routed to a baghouse they would not meet the regulatory definitions of "fugitive."

Comment #3: Melt Shop Source Description, Page 16: Please update the source description to include the single furnace operational details provided in the process description section of the permit application.

Response: The source description was updated to reflect both the two EAFs and the new single EAF.

Comment #4: SN-01 and SN-12 emission limits, Page 18: Please update the total particulate emission limits (filterable + condensable) to 19.5 lblhr and 68.5 ton/yr. This is consistent with the Melt Shop emission calculations and emission rate tables submitted with the application.

Response: Particulate Matter by definition is comprised of the filterable only portion of particulate emissions and does not include condensable portions as does PM_{10} and $PM_{2.5}$. The filterable only emissions from the calculations and the emission rate table included in the application was used for the permitted rate. No change to the permit was made.

Comment #5: The facility requested to update hourly emissions for SN-01 and SN-12 hourly emission limits for SO_2, CO and NO_x. More information was provided by the manufacturer as to potential emissions of the sources.

Response: The requested change was made.

Comment #6: Specific Conditions No.4, 16, 19 and 31 , Pages 19, 22 and 24: The facility requested that the compliance stack testing required for Melt Shop Baghouse No. 1 and No. 2 (SN-01 and SN-12) be updated to reflect a five-year testing schedule for lead, particulate, and VOC. Please update the testing conditions related to the existing and new EAFs to reflect language consistent with Department practices that following two consecutive successful two-year compliance tests, the testing frequency be reduced to once every five years.

In the event of a failed stack test, the requirement would be moved back to a two-year testing frequency until two consecutive passed tests. Subpart AAb requires testing every 5 years for particulate. There is no history of non-compliance with testing at the existing furnaces. Gerdau is not requesting a production increase with this modification. Therefore, two consecutive testing events should produce enough data to confirm whether the permitted limits are accurate.

Response: The requested change was made..

Comment #7: Specific Conditions No. 13 through 15, Page 21: Please include 63.10686(e) to the references listed to add clarification that the compliance assurance monitoring procedures are applicable pursuant to Part 63 Subpart YYYYY.

Response: Specific Conditions 13 through 15 are CAM provisions required by 40 CFR Part 64. For simplicity those Conditions require the facility to monitor as already required under NSPS AAa and to provide the CAM required reports. There is no association or applicability due to Subpart YYYYY as the comment states. No change was made.

Comment 8: Specific Conditions No. 31 , Page 24: There is a typo represented as "PM_{105}."

Response: The typographical error was corrected.

Comment 9: Specific Conditions No 33, 35 and 36, Pages 24 and 25: These conditions are pertaining to the requirements outlined in 60.273b(e) and (f) for bag leak detection systems and should be removed, as they do not apply. A bag leak detection system is not required for No. 1

baghouse, because it operates a continuous opacity monitoring system. Baghouse No.2 is not a single-stack fabric filter, but rather has roof monitor vents that vent the length of the roof. Pursuant to 60.272(c)(i), a COMS is not required on any modular, multistack, negative-pressure or positive pressure fabric filter if observations of the opacity are performed by a certified visible emissions observer. Observations at the facility are performed by a certified visible emission observer.

Response: Specific Conditions number 33, 35, and 36 were removed as requested.

Comment 10: Specific Condition No. 37, Page 25: This condition should reference 60.272b(d) rather than 60.272b(d).

Response: The condition was corrected to state 60.273b(d).

Comment 11: Specific Condition No. 40, Page 26: The regulatory applicability citation is missing from this condition.

Response: The citation was added.

Comment 12: Specific Condition No. 43, Page 27: There is a typo that combines the words division and personnel in this condition.

Response: The typographical error was corrected.

Comment 13: Reheat Furnace (SN-02) VOC emissions, Page 29: The emissions should be updated to reflect the updated emission limits resulting from the updated factor: 0.3 lb/hr and 1.1 ton/yr.

Response: The requested change was made.

Comment 14: Boiler (SN-03) VOC emissions, Page 31: The emissions should be updated to reflect the updated emission limits resulting from the updated factor and no limit on natural gas usage: 0.3 lb/hr and 1.1 ton/yr.

Response: The requested change was made.

Comment 15: Heat Treat Furnace No.2 (SN-05) VOC emissions, Page 34: The emissions should be updated to reflect the updated emission limits resulting from the updated factor and no limit on natural gas usage: 0.3 lb/hr and 1.0 ton/yr.

Response: The requested change was made.

Comment 16: Heat Treat Furnace No.3 (SN-11) VOC emissions, Page 34: The emissions should be updated to reflect the updated emission limits resulting from the updated factor and no limit on natural gas usage: 0.4 lb/hr and 1.6 ton/yr.

Response: The requested change was made.

Comment 17: Caster Steam Exhaust No.1 (SN-14), Page 46: The limits proposed in the modification application were updated to reflect the use of the annual production limit rather than the hourly maximum at 8,000 hr/yr. Updated values should be 0.2 lb/hr and 0.6 tpy.

Response: The change requested in this comment was not included in the list of requested changes in the permit application and was not evaluated for the draft permit. More information would be needed to make the change as requested. The permittee may submit an application for the Division to review this requested change if they so choose.

Comment 18: Caster Steam Exhaust No. 2 (SN-29), Page 46: The limits proposed in the modification application were updated to reflect the use of the annual production limit rather than the hourly maximum at 8,000 hr/yr. Updated values should be 1.4 lb/hr and 4.6 tpy.

Response: The change requested in this comment was not included in the list of requested changes in the permit application and was not evaluated for the draft permit. More information would be needed to make the change as requested. The permittee may submit an application for the Division to review this requested change if they so choose.

Comment 19: Gerdau requests to add a Plantwide Condition pursuant to 52.21 (r)(6)(iii) for NOx emissions to demonstrate through recordkeeping that the modification requested in the permit application resulting in 0693-AOP-Rl5 did not exceed baseline actual emissions by a significant amount (as defined in 40 CFR Part 52.2l(b)(23).

Response: Plantwide Condition 15 inadvertently cited permit 0693-AOP-Rl5 when it should have cited a previous project and modification. That condition was corrected and new conditions (Plantwide 11 and 12) for reasonable possibility were added for the project which is part of this modification as requested.

DIVISION OF ENVIRONMENTAL QUALITY

OPERATING AIR PERMIT

PERMIT NUMBER: 0693-AOP-R15

IS ISSUED TO:
Gerdau MacSteel Inc.
5225 Planters Road
Fort Smith, AR 72916
Sebastian County
AFIN: 66-00274

PURSUANT TO THE RULES OF THE ARKANSAS OPERATING AIR PERMIT PROGRAM, RULE 26: THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

December 14, 2021 AND December 13, 2026

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Demetria Kimbrough
Deputy Director, Office of Air Quality

August 6, 2025
Date

Table of Contents

List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	Arkansas DEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
HAP	Hazardous Air Pollutant
Hp	Horsepower
lb/hr	Pound Per Hour
NESHAP	National Emission Standards (for) Hazardous Air Pollutants
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_x	Nitrogen Oxide
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter Equal To Or Smaller Than Ten Microns
$PM_{2.5}$	Particulate Matter Equal To Or Smaller Than 2.5 Microns
SNAP	Significant New Alternatives Program (SNAP)
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

SECTION I: FACILITY INFORMATION

PERMITTEE:	Gerdau MacSteel Inc.
AFIN:	66-00274
PERMIT NUMBER:	0693-AOP-R15
FACILITY ADDRESS:	5225 Planters Road Fort Smith, AR 72916
MAILING ADDRESS:	P.O. Box 1592 Fort Smith, AR 72902
COUNTY:	Sebastian County
CONTACT NAME:	Dale Fentress
CONTACT POSITION:	Environmental Manager
TELEPHONE NUMBER:	(479) 649-4034
REVIEWING ENGINEER:	Shawn Hutchings
UTM North South (Y):	Zone 15: 3907864.86 m
UTM East West (X):	Zone 15: 374946.61 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Gerdau MacSteel operates a scrap steel recycling mill near Fort Smith, in Sebastian County, Arkansas. MacSteel produces approximately 250 grades of steel including alloy, carbon, and resulfurized steels primarily from steel scrap using the electric arc furnace (EAF) process.

This permit is to replace the two existing EAFs with one new EAF which will exhaust through the same existing baghouses and remain SN-01 and 12. The new EAF will be subject to NSPS Subpart AAb. Also SN-30 and SN-38 were removed from the permit.

The facility also requested to bubble limits for natural gas sources. This change was not made because those sources have PSD limits and should remain separate.

There were no increases in permitted emissions. All pollutants emission rates were lower.

Process Description

In general, raw materials, including scrap, fluxes, iron carbide, direct reduced iron, hot briquetted iron, pig iron, and other materials, are brought to the facility by rail or truck. Scrap and flux are charged to EAFs and melted by application of electric current through the mixture. Molten metal is poured into a ladle and transferred by an overhead crane to a ladle refining station. Once the molten steel is transferred to the ladle refining station, additional alloys and reagents are added to adjust the chemistry.

From the ladle refining station, the steel is transferred to the stir station and vacuum tank degassers At the stir station, the steel is stirred by the introduction of argon gas into the bottom of the ladle. Additional alloys also may be added to adjust the chemistry. The steel is then transferred to the vacuum tank degassers. At the degassers, dissolved gases are removed by subjecting the steel to a vacuum. Heat also may be added to the steel with the use of electric arcs.

After leaving the degasser, the steel is transferred to a caster where it is drained from the ladle into a tundish and then into the molds. At the caster, the steel solidifies to a round bar. The bars are cut to length and transferred to either the “as cast” cooling bed or directly to the reheat furnace. Bars transferred to the “as cast” cooling bed are sold or stored for future processing.

In the reheat furnace, the steel bars are heated to the temperature required for rolling. The bars are then rolled to a smaller diameter. Bars exiting the rolling mill are cut to length and transferred to the “rolled product” cooling bed. The bars are then deburred and bundled for shipment, for further processing in the heat treat furnaces and/or bar turner.

Rules and Regulations

The following table contains the rules and regulations applicable to this permit.

Rules and Regulations
Arkansas Air Pollution Control Code, Rule 18, effective March 14, 2016
Rules of the Arkansas Plan of Implementation for Air Pollution Control, Rule 19, effective May 6, 2022
Rules of the Arkansas Operating Air Permit Program, Rule 26, effective March 14, 2016
40 CFR 52.21, *Prevention of Significant Deterioration*
40 CFR Part 60, Subpart AAa - *Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 and On or Before May 16, 2022*
40 CFR Part 60, Subpart AAb - *Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After May 16, 2022*
40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*
40 CFR Part 63, Subpart YYYYY, *National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steel Making Facilities*
40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM PM_{10} $PM_{2.5}$* SO_2 VOC CO NO_X Lead	43.9 45.7 41.4 109.8 34.2 468.9 136.6 0.32	147.5 160.7 150.6 339.9 89.6 1681.2 311.7 1.02
HAPs		Total HAPs	8.35	9.9

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
01 12	(2 existing EAFs) Melt Shop Baghouse 1 Melt Shop Baghouse 2	PM PM_{10} $PM_{2.5}$ SO_2 VOC CO NO_x Lead HAPs	27.4 31.4 31.4 90.3 12.7 421.4 43.9 0.3 1.1	109.2 123.9 123.9 331.6 44.7 1547.4 161.1 1.0 4.1
01 12	(Single New EAF) Melt Shop Baghouse 1 Melt Shop Baghouse 2	PM PM_{10} SO_2 VOC CO NO_x Lead HAPs	15.7 19.5 87.3 12.8 392.0 42.9 0.29 0.79	55.1 68.5 137.6 44.8 688.0 120.4 1.03 2.63
02	Reheat Furnace	PM PM_{10} $PM_{2.5}$ SO_2 VOC CO NO_x HAPs	0.7 0.7 0.7 0.1 0.3 1.6 6.3 0.1	2.7 2.7 2.7 0.2 1.1 6.9 27.6 0.4
03	Boiler	PM PM_{10} $PM_{2.5}$ SO_2 VOC CO NO_x HAPs	0.7 0.7 0.7 0.1 0.3 1.6 6.3 0.1	2.7 2.7 2.7 0.2 1.1 6.9 27.6 0.4
04	Heat Treat Furnace 1	PM PM_{10} $PM_{2.5}$ SO_2 VOC CO NO_x	0.6 0.6 0.6 0.5 0.5 1.3 5.2	2.3 2.3 2.3 2.0 2.0 5.7 22.4

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		HAPs	0.1	0.3
05	Heat Treat Furnace 2	PM	0.6	2.3
		PM_{10}	0.6	2.3
		$PM_{2.5}$	0.6	2.3
		SO_2	0.1	0.2
		VOC	0.3	1.0
		CO	1.4	5.9
		NO_x	5.4	23.6
		HAPs	0.1	0.4
10	Deburring Line	PM	0.2	0.8
		PM_{10}	0.2	0.8
		$PM_{2.5}$	0.2	0.8
11	Heat Treat Furnace 3	PM	0.9	3.9
		PM_{10}	0.9	3.9
		$PM_{2.5}$	0.9	3.9
		SO_2	0.1	0.2
		VOC	0.4	1.6
		CO	6.0	26.2
		NO_x	5.0	21.7
		HAPs	0.2	0.6
13	Vacuum Tank Degasser	PM	0.6	2.1
		PM_{10}	0.6	2.1
		$PM_{2.5}$	0.6	2.1
		SO_2	0.2	0.6
		CO	17.2	74.9
		NO_x	0.2	0.6
14	Caster Steam Exhaust 1	PM	0.5	0.8
		PM_{10}	0.3	0.8
		$PM_{2.5}$	0.3	0.8
15	Bar Turner Building	VOC	1.7	6.1
21	Scrap Bar Cutting	PM	0.2	0.8
		PM_{10}	0.2	0.8
		$PM_{2.5}$	0.2	0.8
		SO_2	0.1	0.1
		VOC	0.1	0.3
		CO	0.3	1.0
		NO_x	1.1	4.8
		HAPs	0.02	0.09

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
22	Slag Processing	PM PM_{10} Lead HAPs	2.4 1.0 0.01 0.27	0.3 0.2 0.01 0.31
23	Hydraulic Fluid Usage	VOC	3.6	14.4
24	Painting/Labeling of Steel Bars	VOC HAPs	7.5 6.3	3.8 3.2
25	Bar Turner Building 2	VOC	1.7	6.1
26	Car Bottom Furnace	PM PM_{10} $PM_{2.5}$ SO_2 VOC CO NO_x HAPs	0.1 0.1 0.1 0.1 0.1 0.5 1.5 0.01	0.2 0.2 0.2 0.1 0.2 1.9 6.6 0.05
27	Bar Turner Building 3	VOC	1.7	6.1
29	Caster Steam Exhaust 2	PM PM_{10} $PM_{2.5}$	1.3 1.3 1.3	5.6 5.6 5.6
31	Lime Storage Silo System	PM PM_{10} $PM_{2.5}$	0.1 0.1 0.1	0.2 0.2 0.2
33	Emergency Diesel Engine	PM PM_{10} $PM_{2.5}$ SO_2 VOC CO NO_x HAPs	0.7 0.7 0.7 0.7 0.7 2.0 9.3 0.01	0.2 0.2 0.2 0.2 0.2 0.5 2.4 0.01
34	Emergency Diesel Engine	PM PM_{10} $PM_{2.5}$ SO_2 VOC CO NO_x	0.7 0.7 0.7 0.7 0.7 2.0 9.3	0.2 0.2 0.2 0.2 0.2 0.5 2.4

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		HAPs	0.01	0.01
35	Emergency Diesel Engine	PM	0.7	0.2
		PM_{10}	0.7	0.2
		$PM_{2.5}$	0.7	0.2
		SO_2	0.7	0.2
		VOC	0.7	0.2
		CO	2.0	0.5
		NO_x	9.3	2.4
		HAPs	0.01	0.01
36	Emergency Diesel Engine	PM	1.0	0.3
		PM_{10}	1.0	0.3
		$PM_{2.5}$	1.0	0.3
		SO_2	16.0	4.0
		VOC	1.0	0.3
		CO	7.2	1.8
		NO_x	31.2	7.8
		HAPs	0.01	0.01
37	Roadway Emissions	PM	4.4	12.6
		PM_{10}	3.8	11.2
		$PM_{2.5}$	0.5	1.3
SN-39	Administrative Building Emergency Generator (162 hp)	PM	0.1	0.1
		PM_{10}	0.1	0.1
		$PM_{2.5}$	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	4.4	1.1
		NO_x	2.6	0.7
		Lead	0.01	0.01
		HAPs	0.01	0.01

*$PM_{2.5}$ limits are source specific, if required. Not all sources have $PM_{2.5}$ limits.
**HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

SECTION III: PERMIT HISTORY

Minor Source **Permit 693-A** was issued on October 1, 1982, with emissions of each criteria pollutant permitted at less than 100 tons per year.

Permit 693-AR-1 was issued on January 3, 1990, allowing the installation of a new ladle furnace.

PSD **Permit 693-AR-2** was issued on October 28, 1993. This permit was a result of testing on the baghouse exhaust which showed emissions greater than 100 tons per year for NO_x, PM/PM_{10}, CO, and SO_2. The minor source baseline date was triggered by the submittal of that PSD application. The minor source baseline date is January 8, 1993 for Sebastian County.

On April 5, 1994, permit **693-AR-3** was issued so that automated steel bar deburring equipment could be installed. This permit was a minor modification. A collection system, consisting of both a cyclone and a fabric filter, was installed to control emissions from this source. This was an 8,500 cfm system. The manufacturer's estimated emission rate was 0.0025 gr/scfm or 0.18 lb/hr.

On January 27, 1995, **Permit 693-AR-4** was issued for the installation of a spark arrestor in the Ladle Metallurgical Furnace duct. An investigation in the cause of failing a recent particulate test of the baghouse revealed that an increased amount of spark carry over from the LMF was damaging the filter media in the baghouse. None of the emission rates were affected by that modification.

Permit 693-AOP-R0 was issued on February 18, 1998, and allowed the installation and operation of a second baghouse to control emissions from the melt shop, increasing steel production from 74 to 86 tons per hour, incorporating minor emission sources previously not permitted (heat treat #3 and bar turner #2), and revising emission factors based on continuous emission monitoring data and changes to AP-42 for natural gas combustion. This permit was the second PSD permit and the first Title V permit for this facility. A summary of the PSD review for permit 693-AOP-R0 is presented below.

Summary of PSD review for air permit 693-AOP-R0

The following describes the PSD review required for issuance of Permit 693-AOP-R0. These issues are presented here for information purposes only, and are not part of this modification.

MacSteel is considered a major stationary source under the PSD regulations. Permit 693-AOP-R0 included sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (PM/PM_{10}), and lead (Pb) emission increases of 185.3 tpy, 308.7 tpy, 47.6 tpy, 75.7 tpy, 0.68 tpy, respectively. These increases exceeded the PSD significance levels and were subject to

PSD review. Emission increases of 23.3 tpy volatile organic compounds (VOC) were below the significance level, therefore, VOC emissions were not subject to PSD review.

The PSD regulations mandate that a case-by-case Best Available Control Technology (BACT) analysis be performed on all sources which were directly associated with enhancing the mill's steel production and heat treat furnace #3. The BACT determination is summarized below.

Summary of BACT Determination			
Source	Description	Pollutant	Control Technology
SN-01 SN-12	Electric Arc Furnaces (2 baghouses)	PM/PM_{10}	Fabric Filter
		SO_2	Use of high quality scrap
		CO	Side draft hood system
		NO_x	Oxyfuel natural gas burners
		Pb	Fabric Filter
SN-06	Caster	PM/PM_{10}	Routed to baghouse
SN-11	Heat Treat Furnace #3	PM/PM_{10}	Combustion of natural gas
		SO_2	Combustion of natural gas
		CO	Good combustion practices
		NO_x	Ultra low-NO_x burners
SN-22	Slag processing and storage piles	PM/PM_{10}	Water spray on transfer points and slag dumping area
SN-07	Ladle Metallurgy Furnace (LMF)	PM/PM_{10}	Routed to Fabric Filters (SN-01 and SN-12)

Permit 693-AOP-R1 was issued on December 11, 1998. It consisted of adding a car bottom furnace (heat input of 5 MMBtu/hr), changing the hydraulic fluid used from ethylene glycol to diethylene glycol, including an alternative status inspection procedure for the melt shop baghouses, and adding sources to the insignificant source list.

Permit 693-AOP-R2 was issued on December 4, 2000. It included removal of the hourly steel production limit of 86 tons per hour which was justified by the requirement to operate continuous emission monitors on the two EAF baghouses. The permit also included newly calculated emission limits for affected sources using an hourly production rate of 92 tph. The annual steel production limit remained unchanged. The increase of steel production to 92 tph resulted in a facility wide increase of 0.1 tpy of PM/PM_{10}, 0.3 tpy of SO_2, 0.3 tpy of NO_X, 4.6 tpy of CO, 4.5 tpy of VOC, and 0.3 tpy of HAPs.

Permit 693-AOP-R3 was issued on March 9, 2001. It included the addition of two new buildings to be located on the property immediately south of the existing facility. These

buildings include one new source, Bar Turner Building #3, and one insignificant source, bar straighteners. The potential to emit for the new source was 5.6 tons per year of VOC.

Permit 693-AOP-R4 was issued on March 27, 2002. In this modification MacSteel was permitted to construct a second steam exhaust (SN-29) for the caster area to remove excess steam within the building. The current steam exhaust (SN-14), which is currently listed as an insignificant activity, must also be included in the permit as a source. The annual emission for SN-14 was 0.66 tpy, and the annual emission for SN-29 was 5 tpy. The permittee maintained all limits and recordkeeping requirements as stated in the past permit.

Permit 693-AOP-R5 was issued on August 7, 2003. In this permitting action MacSteel was issued its first renewal to the original Title V Operating Permit. A Compliance Assurance Monitoring (CAM) Plan was submitted, approved, and incorporated into the conditions of the permit. The CAM affected sources at this facility were the Melt Shop Baghouses (SN-01 and SN-12).

Other permit actions included were incorporation of two minor modifications approved on November 12, 2002, and January 31, 2003. The first of these minor modifications allowed the installation and operation of a 53 MM Btu/hr natural gas-fired boiler (SN-30). Limited operation of SN-30 was required as not to exceed Title V minor modification criteria. The second minor modification allowed the use of landfill gas at the Heat Treat Furnace (SN-04). Both of these permit changes caused increased emissions in the form of the typical products of combustion.

A modification was also included in this permit action. This modification allowed the unlimited use of the boiler allowed by the minor modification approved on November 12, 2002 (installation of SN-30 mentioned above). Unlimited operation of SN-30 did not trigger PSD review.

Permit 693-AOP-R6 was issued on August 24, 2004. This modification incorporated provisions approved in a minor modification acceptance letter dated February 14, 2004. It allowed the permittee to melt up to 15,000 lbs of turnings or machine shop borings per heat of steel at the Melt Shop (SN-01 and SN-12). Preliminary test runs, approved by the Air Division – Enforcement Branch, have shown that emissions are not affected by this change in operation. CEMS operated at the affected sources will continue to be operated to further demonstrate compliance with permitted limits.

Permit 693-AOP-R7 was issued on November 9, 2005. This permit modification allowed MacSteel to install twin vacuum tank degassers (VTD) to replace the existing vacuum arc degasser (VAD). Due to process and steam capability, only one VTD can be operated at a time, limiting emissions to the same level as the currently permitted VAD. The steam condenser tank and steam exhaust tank were relocated. MacSteel also installed a new lime silo which vents to the existing baghouse, SN-01. This permit also increased the 24-hour average steel production rate from 92 to 98 tons per hour (tph). This increase was possible due to a lower caster "saw level floor" and lower caster saws which increase the metallurgical height of the caster. This will increase the caster speed, which in turn can achieve higher steel production. The annual

production limit of 631,584 tons per year was not changed. This change resulted in slight emissions increases at SN-13, SN-14, SN-15, SN-22, SN-23, SN-24, SN-25, SN-27 and SN-29. Quanex also requested the following: revise permit conditions 66 and 67 for miscellaneous process-related painting/labeling (SN-24); remove the designation of "Safety Kleen" from the parts washers in the Insignificant Activities list; add two roughing stands to the rolling mill operations listed in the Insignificant Activities list; add one hot saw for rolled product to the Insignificant Activities list; and increase slag production from 72,800 to 87,780 tons per year. These changes resulted in increases in permitted emission rates of 1.6 tpy PM/PM_{10}, 0.1 tpy SO_2, 2.8 tpy VOC, 4.6 tpy CO, and 0.1 tpy NO_x.

Permit 693-AOP-R8 was issued on February 16, 2007. This modification added one new 10.0 MMBtu/hr natural gas-fired ladle preheater (exhausts to SN-01 and SN-12); permitted an existing 7.0 MMBtu/hr ladle preheater (exhausts to SN-01 and SN-12); updated the capacity of the three existing permitted ladle preheaters to 7.0 MMBtu/hr (exhaust to SN-01 and SN-12); added a new lime silo with baghouse (SN-31); and added a baghouse for the lime transfer system (exhausts to SN-01 and SN-12). In addition, Specific Condition #73b was updated in accordance with changes to 40 CFR Part 60, Subpart Dc.

Permit 693-AOP-R9 was issued on May 27, 2011. This permit was the Title V renewal for the facility. Changes to this permit included: Adding existing Emergency Diesel Engines as sources due to MACT applicability, adding MACT Subpart YYYYY requirements, adding roadway emissions, and allowing SN-21 to cut scrap from offsite.

Permit 693-AOP-R10 was issued November 25, 2014. MacSteel added an A-7 Insignificant Activity to the insignificant activities list in this permitting action.

Permit 693-AOP-R11 was issued August 29, 2016. This permit was the Title V renewal for the facility. It also incorporated an increase in operation at the Melt Shop. $PM_{2.5}$ was permitted for the first time at 153.1 tpy. All other pollutants decreased or did not change.

Permit 693-AOP-R12 was issued on June 16, 2021. This permit was a minor modification to change slag processers and replace, SN-22, slag processing and to add a powerscreen, SN-38. Permitted emissions increased 0.02 tpy of lead and 0.33 tpy of HAPs. All other pollutants stayed the same or were lowered.

Permit 693-AOP-R13 was issued on December 14, 2021. This permit was the Title V renewal for the facility. HAP emissions increased 3.08 tpy due to changes in emissions factors and standardized permit practices.

Permit 693-AOP-R14 was issued on July 28, 2022. This permit was add a 162 hp, rich burn, natural gas fired spark ignition emergency generator (SN-39), increase the material throughput at SN-22 and SN-38 from 93,568 to 158,240 tons of slag per year to account for the addition of mill scale and used refractory materials processed at these sources, and remove cyclone and baghouse control devices from the automated deburring line (SN-10) to resolve clogging issues with the control equipment.

Permitted emission rates are increasing/decreasing by 2.4 tpy PM, 2.2 tpy PM_{10}, 0.9 tpy $PM_{2.5}$, 0.1 tpy SO_2/VOC, 1.1 tpy CO, 0.7 tpy NO_x, 0.01 tpy Lead and -0.24 tpy HAPs. HAPs are decreasing because the previous emission rate at SN-22 (0.31 tpy HAPs) was a typographical error and should have been 0.031 tpy.

SECTION IV: SPECIFIC CONDITIONS

SN-01 and SN-12
Melt Shop Baghouse 1 and 2

Source Description

Gerdau has been permitted to replace existing EAFs with a single EAF. Both scenarios are listed below. Scrap iron and steel and scrap substitutes are received by rail and truck. After unloading, the scrap is either stored in stockpiles or loaded into furnace charging buckets. The scrap, lime, alloys, and coke/coal are charged into the electric arc furnace(s) (EAFs). Lime and carbon (fluxes) are handled and stored in bulk form. Charging and melting cycles are staggered between the furnaces. There are no limitations which would preclude tapping both furnaces at the same time or charging one furnace while tapping the other. The two exiting EAFs are subject to NSPS-AAa. The new EAF is subject to NSPS Subpart AAb. All EAF emissions are split between two baghouses, SN-01 and SN-12.

The EAF(s) operate in a batch mode. During normal operation, cold scrap metal, scrap substitutes, coke/coal, and lime are charged into the brick-lined EAF(s) powered by transformers and auxiliary natural gas-fired oxy fuel burners. The charging and melting cycles are staggered between the furnaces. After charging the furnace(s), the lid or roof of the EAF(s) is swung into position and a large electrical potential is applied to the carbon electrodes. The combination of the heat from the arcing process, chemical energy from oxygen lances, and the heat from the auxiliary burners melt the scrap into molten steel. As the scrap begins to melt, the temperature of the exhaust gas from the EAF(s) increases appreciably. When the melting is complete and oxygen lancing is performed, the temperature of the molten steel can approach 3,000°F. This operational cycle is repeated approximately every 90 minutes.

After the steel is melted, it is refined at the ladle refining station through the addition of alloys and reagents, along with heat. Emissions from the refining process are collected by a side-draft hood and ducted through a spark arrestor and into the melt shop baghouse (SN-01). Other emissions from the refining process are collected by melt shop baghouses (SN-01 and SN-12). Refined steel is conveyed to a stir station where argon gas is added to the bottom of the ladle. At this stage, additional alloys can be added. The steel is then conveyed to one of two vacuum tank degassers (SN-13) where dissolved gases are removed through application of a vacuum. Emissions from the stir station and vacuum tank degassers (door open) are collected with hoods and ducted to the baghouses. Emissions from the vacuum tank degassers are collected by the steam injector when the door is closed.

After the temperature and composition of the molten steel is adjusted at the vacuum degassers, the molten steel is transferred to the continuous caster. The molten steel is poured from the ladle into a tundish, which funnels the molten steel into a mold. The steel solidifies as it passes through the water-cooled mold, providing immediate cooling of the outer skin. At this point, the center of the steel is still molten. The caster produces round bars. Emissions from the continuous caster are captured by the canopy hood and ducted to the melt shop baghouses (SN-

01, SN-12). This hood is estimated to capture 100% of emissions generated at the caster. Exhausts from the caster cooling zones and caster hot saws are released to the atmosphere through vents SN-14 and SN-29.

Molten metal is tapped from the EAF(s) into a ladle and transported to the ladle metallurgy furnace (LMF). The LMF station is used primarily to adjust the composition and temperature of the steel. The processes conducted at the LMF station include the injection/addition of alloys, fluxes, and non-ferrous metals. Emissions from the LMF station can be either gaseous or in particulate form. Particulate emissions are generally attributed to dust associated with fluxes, slag, and various additives. Gaseous emissions are generally associated with the oxidation of metals. Emissions from the LMF are captured by the side-draft hood and ducted to the EAF baghouse (SN-01). Other emissions from the LMF are collected by melt shop baghouses (SN-01 and SN-12).

MacSteel utilizes four natural gas-fired tundish preheaters, each with a maximum heat input capacity of 1.2 MMBtu/hr. These units are used to raise the temperature of the tundishes prior to transfer of molten steel to the ladles. Low-NOx burners are used in the preheaters to minimize emissions of nitrogen oxides. The tundish preheaters emit natural gas combustion by-products which are captured by the roof canopy system and ducted to the EAF baghouses (SN-01 and SN-12).

Ladle preheaters. MacSteel incorporates five natural gas-fired ladle preheaters, four with a maximum heat input of 7.0 MMBtu/hr and one with a maximum heat input capacity of 10.0 MMBtu/hr. These units are used to raise the temperature of the ladles prior to transfer of molten steel to the ladles. Low-NOx burners are used in the preheaters to minimize emissions of nitrogen oxides. Emissions from these preheaters are vented to the melt shop baghouses and are addressed in the section discussing emission points SN-01 and SN-12.

Ladle Dryout, Refractory Dryers. MacSteel utilizes numerous ladles and tundishes. Each ladle or tundish requires a certain amount of refractory brick. After time, the refractory lining in the ladles and tundishes needs to be replaced. The removal of the refractory lining is accomplished using jack hammers. This operation is associated with the emission of small amounts of particulate in the building. As such refractory removal is considered an insignificant activity. After removal of the old refractory lining, new refractory is applied and cured. The mill incorporates one (1) natural gas-fired ladle dryout with a maximum heat input capacity of 1.2 MMBtu/hr and six (6) natural gas-fired refractory dryers each with maximum heat input capacity of 1.2 MMBtu/hr.

Emissions from the Caster, Ladle Metallurgy Furnace (LMF), Tundish Preheaters, Ladle Dryout, Refractory Dryers, and Ladle Preheaters, are vented to the EAF baghouses (SN-01 and SN-12).

The dust collection equipment for the EAF(s), LMF, caster, stir station, vacuum tank degassers, and other melt shop emission sources consists of two multi-compartment, positive pressure baghouses (SN-01 and SN-12). Each module contains multiple filter bags, with all necessary reverse-air bag cleaning mechanisms, flow control, and material transfer and removal equipment.

The design of the baghouses allows for on-line maintenance and cleaning. The air-moving mechanism for the systems consists of multiple blowers. SN-01 has a single exhaust stack, while SN-12 has a roof monitor vent along the length of the roof.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-01 SN-12 (Existing EAFs)	Melt Shop Baghouse 1 and 2	PM $PM_{10(filterable)}$ SO_2 CO NO_x Lead	27.4 27.4 90.3 421.4 43.9 0.3	109.2 109.2 331.6 1547.4 161.1 1.0

2. The permittee shall not exceed the emission rates set forth in the following table. The HAPs below exclude lead. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-01 SN-12 (Existing EAFs)	Melt Shop Baghouse 1 and 2	HAPs	1.1	4.1
SN-01 SN-12 (New EAF)	Melt Shop Baghouse 1 and 2	PM HAPs	15.7 0.79	55.1 2.63

3. The emissions from SN-01 and SN-12 shall not exceed the values in the following table. Compliance with this condition will be shown by compliance with Specific Conditions 4, 16, 17 and 31, and 16. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
SN-01 SN-12 (Existing EAFs)	$PM_{10(total)}$ $PM_{2.5}$ VOC	31.4 31.4 12.7	123.9 123.9 44.7

SN-01 SN-12 New EAF	PM_{10}	19.5	68.5
	SO_2	87.3	137.6
	VOC	12.8	44.8
	CO	392.0	688.0
	NO_x	42.9	120.4
	Lead	0.29	1.03

Specific Conditions 4 - 15 for the Existing two EAFs

4. The permittee shall measure the particulate emissions every twenty-four months from the melt shop baghouse SN-01 using Method 5, and the melt shop baghouse SN-12 using method 5D. The permittee shall also conduct test for condensable particulate emissions concurrently using EPA reference Method 202. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf). Each test shall consist of three runs. The test runs on both baghouses shall be conducted simultaneously, unless inclement weather interferes. The permittee shall report all emissions measured as PM_{10} or may conduct separate PM_{10} testing using EPA Reference Method 201 or 201A as found in 40 CFR Part 51, Appendix M. If the production rate is above 98 tons/hour, the tested rate would be compared directly to the permitted emission rate. If the permittee passes three consecutive tests at below 90% of the limits for PM and PM_{10} the testing may be extended to every 60-months. Should any test exceed 90% of the limits, the testing interval shall return to every 24-months. These tests shall be conducted in accordance with Plantwide Condition 3 and on the permittee's current testing schedule. To demonstrate compliance with the filterable particulate limit (0.0018 gr/dscf and 27.4 lb/hr), the concentration of particulate matter shall be determined using the following equation:

$$CST = \frac{\{C_1 * Q_1 + C_2 * Q_2\}}{\{Q_1 + Q_2\}}$$

where: CST= average concentration of filterable particulate matter
C_1 = concentration of PM from SN-01 (gr/dscf)
C_2 = concentration of PM from SN-12 (gr/dscf)
Q_1 = flow rate of stack gas from SN-01 (dscf/hr)
Q_2 = flow rate of stack gas from SN-12 (dscf/hr)

[Reg.19.304 and 40 C.F.R. § 60.275a(e), 40 CFR Part 64, and 40 CFR 60.275a(e)]

5. The average concentration of filterable particulate matter from SN-01 and SN-12 calculated using the equation in Specific Condition 4 (CST) shall not exceed 0.0018 gr/dscf. [Reg.19.501 *et seq.*, Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

6. The permittee shall not emit any gases from SN-01 or SN-12 with an average opacity of 3% or greater, as measured by EPA Reference Method 9. Visible emission observations shall be conducted on SN-12 at least once-per-day by a certified visible emission

observer when at least one of the furnaces is operating in the melting and refining period, unless inclement weather prevents. It shall be noted on the observation form that the readings were taken during the melting and refining period. These observations shall be performed for at least three 6-minute periods. [Reg.19.304 and 40 C.F.R. § 60.272a(a)(2); Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E; and 40 C.F.R. § 64]

7. The permittee shall not emit any gases from the melt shop due solely to the operations of the EAFs with an opacity of 6% or greater, as measured by EPA Reference Method 9 during the particulate testing. The permittee shall be responsible for these observations and shall keep records showing compliance with this condition. These observations shall be performed for at least three 6-minute periods. [Reg.19.304 and 40 C.F.R. § 60.272a(a)(3); Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E; and 40 C.F.R. § 64]

8. The permittee shall not emit any gases from the dust handling systems servicing the EAF baghouses with an opacity of 10% or greater. The permittee shall conduct weekly observations of the opacity from the dust handling system, and keep a record of these observations. If visible emissions are detected, then the permittee shall conduct three 6-minute opacity readings on the equipment where visible emissions were observed in accordance with EPA Reference Method 9. The results of these observations shall be kept on site and made available for inspection upon request. For the purposes of this condition, the dust handling system consists of the baghouse dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment. [Reg.19.304 and 40 C.F.R. § 60.272a(b) and 40 C.F.R. § 64]

9. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from SN-01. The opacity shall not exceed 3% based on a 6-minute average. This monitor shall be operated in accordance with the *Arkansas Continuous Emission Monitoring Systems Conditions* as found in appendices of this permit. [Reg.19.304 and 40 C.F.R. § 60.273a(a) and 40 C.F.R. § 64]

10. The permittee shall perform monthly operational status inspections of the equipment that is important to the total capture system. This inspection shall include observations of the physical appearance of the exterior of the capture system for the presence of holes or leaks, on a monthly basis. The permittee shall also continuously monitor the flow rates to the two EAF baghouses using existing flow monitors which were installed on the baghouses. The permittee shall use these flow rates to continuously determine if fan erosion, dust accumulation on the interior of the ducts, or damper positions is unacceptable. For the purposes of this condition, unacceptable operation shall be defined as flow rates less than the baseline flow rate determined during the semiannual particulate testing. Operation at flow rates during any period less than the most recently determined baseline flow rate may be considered unacceptable operation and maintenance of the

capture system. Operation at such values shall be reported to the Department semiannually. [Reg.19.304 and 40 C.F.R. §§ 60.274a(d), 60.276a(c) and 64]

11. The permittee shall, during any emission testing on the baghouses, monitor and record the following information for all heats covered by the tests:

    a. Charge weights and materials, and tap weights and materials.
    b. Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing.
    c. Control device operation log.
    d. Continuous monitor and Reference Method 9 data.

    [Reg.19.304 and 40 C.F.R. §§ 60.274a(h) and 64]

12. The permittee shall install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through both baghouses (SN-01 and SN-12). The flow monitors may be installed in any appropriate location such that reproducible flow rate monitoring will result. The flow rate monitoring devices shall have an accuracy of ±10% over its normal operating range and shall be calibrated according to the manufacturer's instructions. This monitor shall be operated in accordance with the *Arkansas Continuous Emission Monitoring Systems Conditions* as found in appendices of this permit. [Reg.19.304 and 40 C.F.R. § 60.274a(b)]

13. The permittee must monitor the baghouses, SN-01 and SN-12 according to the compliance assurance monitoring requirements outlined in Specific Conditions 6, 9, 10, 11, and 12. [Reg.19.304 and 40 C.F.R. § 64]

14. The permittee shall submit reports as required by § 64.9(a). These records shall include: Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; 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 a description of the actions taken to implement a QIP during the reporting period as specified in §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. [Reg.19.304 and 40 C.F.R. § 64]

15. The permittee shall submit reports as required by § 64.9(b). The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of

monitoring, or records of monitoring maintenance or corrective actions [Reg.19.304 and 40 C.F.R. § 64]

Specific Conditions 16 – 30 for both the new EAF and the two existing EAFs

16. The permittee shall measure the VOC emissions from the melt shop baghouse SN-01 using Method 25A, and the melt shop baghouse SN-12 using Method 25A every 24-months. The test runs on both baghouses shall be done simultaneously. These tests shall be conducted in accordance with Plantwide Condition 3 and on the permittee's current testing schedule. If the permittee passes three consecutive tests at below 90% of the limits for VOC the testing may be extended to every 60-months. Should any test exceed 90% of the limits, the testing interval shall return to every 24-months. [Reg.19.702 and 40 C.F.R. § 52 Subpart E]

17. The permittee shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) for each baghouse (SN-01 and SN-12). The CEMS shall measure and record the concentrations of CO, NO_x, and SO_2 leaving each baghouse, simultaneously. Both systems shall be operated in accordance with the *Arkansas Continuous Emission Monitoring Systems Conditions* as found in the appendices of this permit. [Reg.19.703, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

18. The combined CO, NO_x, and SO_2 emissions from SN-01 and SN-12 shall not exceed the values listed in Specific Condition 1. The averaging time for compliance purposes with hourly limits shall be 3-hour rolling averages, such that a new 3-hour average is computed every hour. Compliance with the tons/year emission rates shall be determined on a monthly basis based on a rolling 12-month total of the CEMS data. The permittee shall submit reports in accordance with General Provision 7. [Reg.19.501 *et seq.,* Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

19. The permittee shall demonstrate compliance with the lead emission limits by either measuring the lead concentration in the baghouse dust then calculating lead emissions by multiplying the measured filterable particulate emissions by the lead concentration percentage in the baghouse dust or performing stack testing using Reference Method 12 simultaneously on both baghouses. These demonstrations shall be conducted every 24-months. If the permittee passes three consecutive tests at below 90% of the limits for lead the testing may be extended to every 60-months. Should any test exceed 90% of the limits, the testing interval shall return to every 24-months. Stack testing shall be conducted in accordance with Plantwide Condition 3. [Reg.19.702 and 40 C.F.R. § 52 Subpart E]

20. The permittee shall not exceed 20,000 pounds of turnings or machine shop borings per heat of steel. The turnings/ borings shall contain no free oils. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

21. The permittee shall maintain monthly records to demonstrate compliance with the turnings/ borings limit of Specific Condition 20. A monthly average shall be used by dividing the total pounds of turnings/ borings melted that month by the total number of heats performed during that month. Records shall be updated by the 15th day following the month to which they pertain. Records shall be kept onsite, made available to Department personnel upon request, and submitted in accordance with General Provision 7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

22. The permittee shall not exceed 688,000 tons per year of steel production based on a rolling 12-month total. Compliance with this condition shall be demonstrated on a monthly basis by totaling the steel production for the previous 12 months. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E and Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

23. The permittee shall maintain records on site of the tonnage of steel produced during each month to verify compliance with Specific Condition 22. The permittee shall submit reports in accordance with General Provision 7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

24. The permittee shall combust only pipeline quality natural gas in the tundish preheaters, ladle dryout, ladle preheaters, and refractory dryers. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E and Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

25. The permittee shall for metallic scrap utilized in the EAF prepare and implement a pollution prevention plan as required in §63.10685(a)(1) or the scrap restrictions of §63.10685(a)(2). [Reg.19.304 and 40 C.F.R. § 63 Subpart YYYYY]

26. The permittee shall for scrap containing motor vehicle scrap participate in and purchase motor vehicle scrap from providers who participate in a program for the removal of mercury switches as required in §63.10685(b)(2) that is approved by the Administrator of 40 CFR Part 63, Subpart YYYYY or certify the scrap does not contain motor vehicle scrap. For scrap that does not contain motor vehicle scrap the permittee must maintain records of documentation that the scrap does not contain motor vehicle scrap. [Reg.19.304 and 40 C.F.R. § 63 Subpart YYYYY]

27. The permittee shall maintain the records required in §63.10 and records which demonstrate compliance with the requirements of the pollution prevention plan and scrap restrictions of Specific Condition 25 and with the mercury requirements in Specific Condition 26. Additionally, the permittee must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch program. If the motor vehicle scrap is purchased from a broker, the permittee must maintain records identifying each broker and documentation that all scrap provided

by the broker was provided by other scrap providers who participate in an approved mercury switch removal program. [Reg.19.304 and 40 C.F.R. § 63 Subpart YYYYY]

28. The permittee must submit semiannual compliance reports to the Administrator of 40 CFR Part 63, Subpart YYYYY for the control of contaminates from scrap according to the requirements of §63.10(3). The report must clearly identify any deviation from the requirements of §63.10685(a) and (b) outlined in Specific Conditions 25 and 26. [Reg.19.304 and 40 C.F.R. § 63 Subpart YYYYY]

29. The permittee must install, operate, and maintain a capture system that collects the emissions from each EAF and conveys the collected emissions to a pollutant control device for the removal of particulate matter. [Reg.19.304 and 40 C.F.R. § 63 Subpart YYYYY]

30. The permittee must not discharge from SN-01 or SN-12 any gasses from an EAF which exhibit a 6% opacity or greater or contain in excess of 0.0052 gr/dscf. [Reg.19.304 and 40 C.F.R. § 63 Subpart YYYYY]

Specific Conditions 31 - 43 for the New EAF

31. The permittee shall perform stack testing of SN-01 and SN-12 baghouse for PM, PM_{10}, and to show compliance with the emissions limits in Specific Conditions #3 #32, and NSPS Subpart AAb. Testing shall be performed initially and every 24-months thereafter in accordance Plantwide Condition 3 and 4, 40 CFR 60.275b and EPA Reference Method 5D as found in 40 CFR, Part 60, Appendix A. The sampling time and sampling volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf). The permittee shall report all emissions measured using Method 5D as filterable PM or PM_{10} or may conduct separate filterable PM_{10} testing using EPA Reference Method 201 or 201A. The permittee shall also conduct test for condensable particulate emissions concurrently using EPA reference Method 202 and include these results in PM_{10} values for compliance with emission rates. The report shall include information specified in § 60.276b(f) of 40 CFR, Part 60, Subpart AAb. Testing shall be conducted when the EAF is operated at or near its capacity based on the specific type of steel to be produced. A targeted capacity would be 98 tons/hour of steel. If the production rate is less than 70 tons/hour, the tested emission rates shall be scaled up to 98 tons/hour and compared to the permitted emission rates. If the production rate is above 98 tons/hour, the tested rate would be compared directly to the permitted emission rate. If the permittee passes three consecutive tests at below 90% of the limits for PM and PM_{10} the testing may be extended to every 60-months. Should any test exceed 90% of the limits, the testing interval shall return to every 24-months. [Rule 19.304 and 40 C.F.R. §§ 60.275b(e)(1) Subpart AAb and Rule 19.702 and 40 C.F.R. § 52 Subpart E]

32. The permittee shall not cause to be discharged into the atmosphere from an SN-01 or SN-12 any gases which contain particulate matter as a total for the facility in excess of 79

mg/kg steel produced (0.16 lb/ton steel produced) [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

33. The permittee shall not discharge into the atmosphere any gases from the EAF Baghouses, SN-01 and 12, exhibiting 3 percent opacity or greater. [Rule 19.304 and 40 C.F.R. § 60.272b(a)(2)]

34. A furnace static pressure monitoring device is not required on any EAF equipped with a Direct-shell evacuation control system (DEC system) if observations of shop opacity are performed by a certified visible emission observer as outlined in 60.273b(d). [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

35. When the owner or operator of an affected facility is required to demonstrate compliance with the standards under § 60.272b(a)(3) and at any other time that the Administrator may require (under section 114 of the CAA, as amended), the owner or operator shall, during all periods in which a hood is operated for the purpose of capturing emissions from the affected facility subject to paragraph (b) of this section, either:
(i) Install, calibrate, and maintain a monitoring device that continuously records the fan motor amperes at each damper position, and damper position consistent with paragraph (h)(5) of 60.274b;
(ii) Monitor and record as no greater than 15-minute integrated block average basis the volumetric flow rate through each separately ducted hood; or
(iii) Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet, and monitor and record the damper position consistent with paragraph (h)(5) of 60.274b.
(2) Parameters monitored pursuant to this condition, excluding damper position, shall be recorded as integrated block averages not to exceed 15 minutes.
(3) The owner or operator may petition the Administrator or delegated authority for reestablishment of these parameters whenever the owner or operator can demonstrate to the Administrator's or delegated authority's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of the parameters as determined during the most recent demonstration of compliance shall be the appropriate operational range or control set point throughout each applicable period. Operation at values beyond the accepted operational range or control set point may be subject to the requirements of § 60.276b(c). [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

36. Except as provided under paragraph (e) of 60.274b, the owner or operator shall perform monthly operational status inspections of the equipment that is important to the performance of the capture system (*i.e.,* pressure sensors, dampers, and damper

switches). This inspection shall include observations of the physical appearance of the equipment (*e.g.,* presence of holes in ductwork or hoods, flow constrictions caused by dents or excess accumulations of dust in ductwork, and fan erosion) and building inspections to ensure that the building does not have any holes or other openings for particulate matter laden air to escape. Any deficiencies that are determined by the operator to materially impact the efficacy of the capture system shall be noted and proper maintenance performed. [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

37. Except as provided under § 60.273b(d), if emissions during any phase of the heat cycle are controlled by the use of a DEC system, the owner or operator shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as no greater than 15-minute integrated block averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions. [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

38. When the owner or operator of an EAF controlled by a DEC is required to demonstrate compliance with the standard under § 60.272b(a)(3), and at any other time the Administrator may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the melting and refining period(s) using the monitoring device required under paragraph (f) of 60.274b. The owner or operator may petition the Administrator or delegated authority for reestablishment of the pressure whenever the owner or operator can demonstrate to the Administrator's or delegated authority's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure range or control setting during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a melting and refining period. Continuous operation at pressures higher than the operational range or control setting may be considered by the Administrator or delegated authority to be unacceptable operation and maintenance of the affected facility. [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

39. During any performance test required under § 60.8 or § 60.272b(d), and for any report thereof required by § 60.276b(f) of this subpart, or to determine compliance with § 60.272b(a)(3) of NSPS Subpart AAb, the owner or operator shall monitor the following information for all heats covered by the test:
(1) Charge weights and materials, and tap weights and materials;

(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and, if a furnace static pressure monitoring device is operated pursuant to paragraph (f) of this section, the pressure inside an EAF when DEC systems are used;
(3) Control device operation log;
(4) Continuous opacity monitor (COM) or EPA Method 9 data, or, as an alternative to EPA Method 9, according to ASTM D7520-16 (incorporated by reference, see § 60.17), with the caveats described under *Shop opacity* in § 60.271;
(5) All damper positions, no less frequently than performed in the latest melt shop opacity compliance test for a full heat, if selected as a method to demonstrate compliance under paragraph (b) of 60.274b;
(6) Fan motor amperes at each damper position, if selected as a method to demonstrate compliance under paragraph (b) of 60.274b;
(7) Volumetric air flow rate through each separately ducted hood, if selected as a method to demonstrate compliance under paragraph (b) of 60.274b; and
(8) Static pressure at each separately ducted hood, if selected as a method to demonstrate compliance under paragraph (b) of 60.274b.
(9) Parameters monitored pursuant to paragraphs (h)(6) through (8) of 60.274b shall be recorded as integrated block averages not to exceed 15 minutes. [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

40. The permittee shall maintain records as required by 60.276b and submit reports as required. These records shall be maintained for at least 5 years from the date of measurement. Reports shall be submitted in accordance with General Provision 7, kept on site, and made available to Division personnel upon request. [Rule 19.304 and 40 C.F.R. Part 60 Subpart AAb]

SN-02
Reheat Furnace

Source Description

The rolling process is initiated at the reheat furnace and proceeds into the rolling mill. The reheat furnace has a maximum heat input capacity of 45 MMBtu/hr which is supplied by natural gas combustion. Waste gas is pulled through a recuperator and exhausted to a stack. In the furnace, the steel bars are heated to a uniform rolling temperature. The furnace incorporates low-NO_x burners to minimize emissions of NO_x. Good combustion practices are utilized to minimize emissions of CO. The furnace has one exhaust stack, identified as SN-02. This source is not subject to NSPS-Dc because the reheat furnace does not fit the definition of a steam generating unit as defined in the subpart.

Specific Conditions

41. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 45. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-02	Reheat Furnace	PM	0.7	2.7
		PM_{10}	0.7	2.7
		SO_2	0.1	0.2
		CO	1.6	6.9
		NO_x	6.3	27.6

42. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 45. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-02	Reheat Furnace	$PM_{2.5}$	0.7	2.7
		VOC	0.3	1.1

43. The permittee shall not exceed the emission rates set forth in the following table. The HAPs below exclude lead. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-02	Reheat Furnace	HAPs	0.1	0.4

44. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance shall be demonstrated through compliance with Specific Condition 45. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
02	5%	Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E

45. The permittee shall combust only pipeline quality natural gas at SN-02. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E and Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

SN-03
Boiler

Source Description

MacSteel utilizes a boiler to provide process steam and heat to the mill. The boiler has a maximum heat input capacity of 45 MMBtu/hr that is supplied by natural gas combustion. This source is not subject to NSPS-Dc since it was constructed before June 9, 1989.

Specific Conditions

46. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 50. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-03	Boiler	PM	0.7	2.7
		PM_{10}	0.7	2.7
		SO_2	0.1	0.2
		CO	1.6	6.9
		NO_x	6.3	27.6

47. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition 50. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-03	Boiler	$PM_{2.5}$	0.7	2.7
		VOC	0.3	1.1

48. The permittee shall not exceed the emission rates set forth in the following table. The HAPs below exclude lead. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-03	Boiler	HAPs	0.1	0.4

49. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance shall be demonstrated through compliance with Specific Condition 50. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
03	5%	Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E

50. The permittee shall combust only pipeline quality natural gas at SN-03. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

SN-04, SN-05, SN-11
Heat Treat Furnaces

Source Description

MacSteel incorporates three natural gas fired heat treat furnaces with maximum heat input capacities of 36.6, 38.4, and 65 MMBtu/hr, respectively, to relieve structural tension from the steel bars and for chemistry adjustments. Each heat treat furnace has an individual stack; identified as SN-04, SN-05, and SN-11. Heat treat furnaces 1-3 are not subject to NSPS-Dc because these furnaces do not meet the definition of a steam generating unit as defined in this subpart.

Specific Conditions

51. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 55. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-04	Heat Treat Furnace	PM PM_{10} SO_2 CO NO_x	0.6 0.6 0.5 1.3 5.2	2.3 2.3 2.0 5.7 22.4
SN-05	Heat Treat Furnace	PM PM_{10} SO_2 CO NO_x	0.6 0.6 0.1 1.4 5.4	2.3 2.3 0.2 5.9 23.6
SN-11	Heat Treat Furnace	PM PM_{10} SO_2 CO NO_x	0.9 0.9 0.1 6.0 5.0	3.9 3.9 0.2 26.2 21.7

52. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition 55. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04	Heat Treat Furnace	$PM_{2.5}$ VOC	0.6 0.5	2.3 2.0

SN	Description	Pollutant	lb/hr	tpy
05	Heat Treat Furnace	$PM_{2.5}$ VOC	0.6 0.3	2.3 1.0
11	Heat Treat Furnace	$PM_{2.5}$ VOC	0.9 0.4	3.9 1.6

53. The permittee shall not exceed the emission rates set forth in the following table. The HAPs below exclude lead. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
04	Heat Treat Furnace	HAPs	0.1	0.3
05	Heat Treat Furnace	HAPs	0.1	0.4
11	Heat Treat Furnace	HAPs	0.2	0.6

54. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance shall be demonstrated through compliance with Specific Condition 55. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
04	5%	Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E
05	5%	Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E
11	5%	Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E

55. The permittee shall combust only pipeline quality natural gas at SN-04, SN-05 and SN-11. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E and Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

SN-10
Automated Deburring Line

Source Description

After the bars are cut, an automated deburring line is used to remove burrs from the end of bars and to blunt sharp edges. PM emissions associated with this operation are vented inside of the building.

Specific Conditions

56. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 22. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-10	Automated Deburring Line	PM_{10} $PM_{2.5}$	0.8 0.4	2.9 1.6

57. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 22. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-10	Automated Deburring Line	PM	0.8	2.9

58. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance shall be demonstrated through compliance with Specific Condition 59. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
10	5%	Rule 18.501

59. The permittee shall conduct weekly observations of the opacity from this source. These observations shall be conducted by a person familiar with the facility's visible emissions. If the permittee detects visible emissions in excess of the limit set forth in the above Specific Condition, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements by

performing a reading in accordance with EPA Method 9. The permittee shall maintain records of all observations, the cause of any visible emissions and the corrective action taken. The permittee must keep these records on site and make them available to Department personnel upon request. [Rule 18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-13
Vacuum Tank Degassers-Steam Injector Condenser

Source Description

After steel is refined in the LMF, it is transferred to a stir station and then to one of two vacuum tank degassers. At the degassers, dissolved gases are removed from the steel through the application of a vacuum. In the degassers, heat may also be added with electric arcs. Emissions from the degassers are collected by a hood and ducted to the EAF baghouses when the door is open (arcing mode). Exhaust from a steam injector condenser (SN-13) occurs when the door is closed (degassing and arcing under partial pressure modes). Emissions from the steam injector condenser were estimated using stack tests. The emission rates, based upon the tests, and adjusted for maximum operation, are presented in the table below.

Specific Conditions

60. The permittee shall not exceed the emission rates set forth in the following table. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-13	Vacuum Tank Degassers-Steam Injector Condenser	PM PM_{10} SO_2 CO NO_x	0.6 0.6 0.2 17.2 0.2	2.1 2.1 0.6 74.9 0.6

61. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Condition 5. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-13	Vacuum Tank Degassers-Steam Injector Condenser	$PM_{2.5}$	0.6	2.1

62. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance shall be demonstrated through compliance with Specific Condition 63.

SN	Limit	Regulatory Citation
13	20%	Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E

63. The permittee shall conduct weekly observations of the opacity from this source. These observations shall be conducted by a person familiar with the facility's visible emissions. If the permittee detects visible emissions in excess of the limit set forth in the above Specific Condition, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements by performing a reading in accordance with EPA Method 9. The permittee shall maintain records of all observations, the cause of any visible emissions and the corrective action taken. The permittee must keep these records on site and make them available to Department personnel upon request. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

SN-15, SN-25, and SN-27
Bar Turner Buildings

Source Description

Operations including bar turning, bar polishing, and bar buffing are conducted in the bar turning buildings. These operations require the use of soluble oils and mineral oils. VOC emissions associated with Bar Turning Buildings #1 and #2, SN-15 and SN-25, exhaust through a fan into the heat treat building and then through a roof exhaust fan which exhausts to the atmosphere. VOC from Building #3, SN-27, exhausts from the roof monitor.

Specific Conditions

64. The permittee shall not exceed the emission rates set forth in the following table. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
15	Bar Turner Building #1	VOC	1.7	6.1
25	Bar Turner Building #2	VOC	1.7	6.1
27	Bar Turner Building #3	VOC	1.7	6.1

SN-21
Scrap Bar Cutting

Source Description

Scrap steel bars from the caster, rolling mill, finishing line, straighteners, bar turner, and from off site are torch-cut into smaller pieces (approximately 3 foot lengths) for recharging in the EAFs. The steel bars are transported to the cutting area via rail cars. The bars are loaded onto a roller table. The cutting is accomplished using two hand-held natural gas/oxygen torches.

Specific Conditions

65. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 68. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-21	Scrap Bar Cutting	PM_{10}	0.2	0.8
		$PM_{2.5}$	0.2	0.8
		SO_2	0.1	0.1
		VOC	0.1	0.3
		CO	0.3	1.0
		NO_x	1.1	4.8

66. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 68. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-21	Scrap Bar Cutting	PM	0.2	0.8
		HAPs	0.02	0.09

67. The opacity from SN-21 shall not exceed 5%, as measured by EPA Reference Method 9. Compliance with this condition shall be demonstrated through compliance with Specific Condition 68. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

68. The permittee shall not exceed a total heat input capacity of 10.8 MMBtu/hr at SN-21. The permittee shall fire only pipeline quality natural gas at SN-21. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

SN-22
Slag Processing

Source Description

Slag generated during the melting and casting operations is poured on the ground in contained areas within the steelworks building under the dust collecting roof canopies. The hot slag is dug out of these areas and deposited in large dump trucks for transportation to the slag processing area. Emissions from the dump truck loading area are controlled by overhead water sprays. Approximately 75 percent of the slag is returned to the scrap storage area as reclaimed steel. The remaining 25 percent is crushed and passed by a magnet to remove steel fines. The remaining material is conveyed to a screening station and sorted by size. At the slag processing area, the slag is first dumped and allowed to cool. During this time, water is continuously sprayed on the slag. When sufficiently cooled, the wet slag is loaded out of the slag pit/cooling area and is placed into a feeder. Next, the slag is screened to remove various metallics and additionally screened for size separation. This screening process is associated with a number of belt-type conveyors. Water sprays are used to minimize PM emissions from all open-air slag processing operations. The sprays have an estimated efficiency of 95 percent. Dust generated during the "dig out" is contained and collected via building and roof canopies.

Specific Conditions

69. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 72 and 73. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-22	Slag Processing	PM_{10} Lead	1.0 0.01	0.2 0.01

70. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 72 and 73. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-22	Slag Processing	PM HAPs	2.4 0.27	0.5 0.06

71. The opacity from SN-22 shall not exceed 20%, as measured by EPA Reference Method 9. SN-22 source shall include slag dumping, wind erosion of slag pits and processed slag piles, slag loadout to feeder for subsequent processing, slag processing including various conveying and sizing operations, and vehicle/equipment traffic on unpaved roads. Compliance with this condition shall be demonstrated through compliance with Specific Condition 72. [Rule 19.503 and 40 C.F.R. § 52 Subpart E]

72. The permittee shall pre-wet the slag material (including mill scale and used refractory materials) prior to loading it into slag processing plants SN-22. [Rule 19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

73. The permittee shall not process more than 158,240 tons of slag (including mill scale and used refractory materials) per year based on a rolling 12 month total. [Rule 19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

74. The permittee shall keep records of the amount of slag, mill scale and used refractory materials processed each month and each 12 month period. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]

SN-23
Hydraulic Fluid Usage

Source Description

The mill utilizes various hydraulic fluids. One such fluid contains diethylene glycol which is not an air toxic, is used in equipment in the melt shop. The diethylene glycol additive serves to minimize the risk of fires or explosions in this equipment.

Specific Conditions

75. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 76. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-23	Hydraulic Fluid Usage	VOC	3.6	14.4

76. The permittee shall maintain monthly records of the VOC used in SN-23. These records shall include the monthly total and consecutive 12-month rolling total. The amount not accounted for shall be considered emissions. These records shall be kept on site and made available to Department personnel upon request. A copy of the records shall be submitted in accordance with General Provision 7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

SN-24
Miscellaneous Process-Related Painting/Labeling

Source Description

A color coding is painted on each steel bar using aerosol spray paint. The maximum annual paint use at the mill is estimated to be approximately 15,000 lbs. The volatile portion of the paints and carrier solvents can be released to the atmosphere during their application. To estimate these emissions, the VOC and HAP content of the paint and solvents was used in conjunction with the maximum annual throughput of paint and solvent.

Specific Conditions

77. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 79. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-24	Miscellaneous Process-Related Painting/Labeling	VOC	7.5	3.8

78. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 79. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-24	Miscellaneous Process-Related Painting/Labeling	HAPs	6.3	3.2

79. The permittee shall keep the MSDS sheet for the paints being used on site and available for inspection by Department personnel upon request. The permittee shall maintain monthly records to demonstrate compliance with the HAP and VOC emission rates of Specific Conditions 77 and 78. These records shall contain the total monthly usage of each paint and solvent, the VOC and HAP contents, and calculations of the total monthly amount of VOCs and HAPs used, and the consecutive 12 month rolling total of the VOC and HAPs used at this source. These records shall be updated by the 15th day of the month following the month to which the records pertain. A copy of these records shall be kept on site and made available to Department personnel upon request. Records shall be submitted in accordance with General Provision 7. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

SN-26
Car Bottom Furnace

Source Description

MacSteel operates a car bottom furnace. The furnace is needed for specialized heat treating of steel bars. The furnace is fired with natural gas and has a maximum heat input rate of 5 MMBtu/hr. The car bottom furnace will emit natural gas combustion by-products to the air. To estimate emissions of sulfur dioxide, VOC, CO, and PM, the maximum hourly heat input capacity was multiplied by AP-42 factors (March, 1998). An estimate of nitrogen oxides was provided by the vendor. All emission rates are based on maximum capacity and continuous operation.

Specific Conditions

80. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by burning only natural gas as fuel at this source. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-26	Car Bottom Furnace	PM_{10}	0.1	0.2
		$PM_{2.5}$	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.5	1.9
		NO_x	1.5	6.6

81. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by burning only natural gas as fuel at this source. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-26	Car Bottom Furnace	PM	0.1	0.2
		HAPs	0.01	0.05

82. Visible emissions from this source shall not exceed 5% opacity as measured by EPA Reference Method 9. Compliance shall be demonstrated by burning only natural gas as fuel at this source. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

SN-14 and SN-29
Caster Steam Exhaust Nos. 1 and 2

Source Description

After the temperature and composition of the molten steel is adjusted at the vacuum degassers, the molten steel is transferred to the continuous caster (SN-06). The molten steel is poured from the ladle into a tundish, which funnels the molten steel into a mold. The steel solidifies as it passes through the water-cooled mold, providing immediate cooling of the outer skin. At this point, the center of the steel is still molten. The continuous caster produces round bars. Emissions from the caster are captured by the canopy hood and ducted to the melt shop baghouses (SN-01, SN-12). Exhausts from the caster cooling zones and caster hot saws are released to the atmosphere through a vent (SN-14) and (SN-29).

Specific Conditions

83. The permittee shall not exceed the emission rates set forth in the following table. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
14	Caster Steam Exhaust No. 1	PM_{10} $PM_{2.5}$	0.3 0.3	0.8 0.8
29	Caster Steam Exhaust No. 2	PM_{10} $PM_{2.5}$	1.3 1.3	5.6 5.6

84. The permittee shall not exceed the emission rates set forth in the following table. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
14	Caster Steam Exhaust No. 1	PM	0.5	0.8
29	Caster Steam Exhaust No. 2	PM	1.3	5.6

85. Visible emissions from sources SN-14 and 29 shall not exceed 20% opacity as measured by EPA reference method 9. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]

SN-31
Lime Storage Silo System

Source Description

This source includes 3 lime storage silos controlled with bin vent filters.

Specific Conditions

86. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 22 and 89, and Plantwide Condition 5. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-31	Lime Storage Silo System	PM_{10} $PM_{2.5}$	0.1 0.1	0.2 0.2

87. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 89 and Plantwide Condition 5. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-31	Lime Storage Silo System	PM	0.1	0.2

88. The visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance shall be demonstrated through compliance with Specific Condition 89. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
31	5%	Reg.18.501

89. The permittee shall conduct weekly observations of the opacity from this source. These observations shall be conducted by a person familiar with the facility's visible emissions. If the permittee detects visible emissions in excess of the limit set forth in the above Specific Condition, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements by performing a reading in accordance with EPA Method 9. The permittee shall maintain

records of all observations, the cause of any visible emissions and the corrective action taken. The permittee must keep these records on site and make them available to Department personnel upon request. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-33, 34, 35, and 36

Emergency Diesel Engines

Source Description

Sources SN-33, 34, and 35 are 300 hp diesel fired emergency engines. Source SN-36 is a 1,300 hp diesel fired emergency engine.

Specific Conditions

90. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 93 through 101. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
33	Emergency Diesel Engine	PM_{10}	0.7	0.2
		$PM_{2.5}$	0.7	0.2
		SO_2	0.7	0.2
		VOC	0.7	0.2
		CO	2.0	0.5
		NO_x	9.3	2.4
34	Emergency Diesel Engine	PM_{10}	0.7	0.2
		$PM_{2.5}$	0.7	0.2
		SO_2	0.7	0.2
		VOC	0.7	0.2
		CO	2.0	0.5
		NO_x	9.3	2.4
35	Emergency Diesel Engine	PM_{10}	0.7	0.2
		$PM_{2.5}$	0.7	0.2
		SO_2	0.7	0.2
		VOC	0.7	0.2
		CO	2.0	0.5
		NO_x	9.3	2.4
36	Emergency Diesel Engine	PM_{10}	1.0	0.3
		$PM_{2.5}$	1.0	0.3
		SO_2	16.0	4.0
		VOC	1.0	0.3
		CO	7.2	1.8
		NO_x	31.2	7.8

91. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific

Condition 93 through 101. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
33	Emergency Diesel Engine	PM HAPs	0.7 0.01	0.2 0.01
34	Emergency Diesel Engine	PM HAPs	0.7 0.01	0.2 0.01
35	Emergency Diesel Engine	PM HAPs	0.7 0.01	0.2 0.01
36	Emergency Diesel Engine	PM HAPs	1.0 0.01	0.3 0.01

92. The opacity from the Emergency Diesel Engines, SN-33, SN-34, SN-35, and SN-36 shall not exceed 20%, as measured by EPA Reference Method 9. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]

93. The permittee shall not operate any single Emergency Diesel Engine, SN-33, SN-34, SN-35, and SN-36 more than 500 hours in any consecutive 12-month period. The permittee shall maintain records of the hours of operation of each generator each month. These records shall be updated by the 15th day of the month following the month that the records represent, kept on site, made available to Department personnel upon request and submitted in accordance with General Provision 7. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

94. The permittee must meet the following maintenance requirements for the Emergency Diesel Engines, SN-33, SN-34, SN-35, and SN-36: Change the oil and filter every 500 hours of operation or annually, whichever comes first; inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, which ever comes first, and replace as necessary. [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

95. The permittee must for the Emergency Diesel Engines, SN-33, SN-34, SN-35, and SN-36, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

96. The permittee is to comply with the operating limitations of 40 CFR Part 60, Subpart ZZZZ that apply at all times and maintain any affected source including any associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

97. The permittee must maintain the Emergency Diesel Engines, SN-33, SN-34, SN-35, and SN-36, according to the manufacturer's emission-related written instructions or develop their own maintenance plan according to 40 C.F.R. § 63.6625(e). [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

98. The permittee must install on each of the Emergency Diesel Engines, SN-33, SN-34, SN-35, and SN-36, a non-resettable hour meter. [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

99. The permittee may utilize an oil analysis program in order to extend the specified oil change requirements in Specific Condition 94. This analysis program shall be conducted as required in 40 C.F.R. § 63.6625(i). [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

100. The permittee may operate the Emergency Diesel Engines, SN-33, SN-34, SN-35, and SN-36, 100 hours per year for maintenance and readiness checks. The permittee may operate the generators 50 hours per year in non-emergency situations as outlined in §63.6640(f)(4). Those 50 hours must be included in the 100 hours for maintenance and readiness checks. There is no limit on emergency operation due to Subpart ZZZZ. The operation limit in Specific Condition 93 still applies. [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

101. The permittee shall submit reports as outlined in 40 C.F.R. § 63.6650. [Reg.19.304 and 40 C.F.R. § 63 Subpart ZZZZ]

SN-37
Roadway Emissions

Source Description

This source represents paved and unpaved roadway emissions from the facility.

Specific Conditions

102. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be shown by application of dust suppressant as necessary to control dust emissions. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-37	Roadway Emissions	PM_{10} $PM_{2.5}$	3.8 0.5	11.2 1.3

103. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be shown by application of dust suppressant as necessary to control dust emissions. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-37	Roadway Emissions	PM	4.4	12.6

104. Nothing in this permit shall be construed to authorize a violation of the Arkansas Water and Air Pollution Control Act or the federal National Pollutant Discharge Elimination System (NPDES). [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-39
Administrative Building Emergency Generator

Source Description

SN-39 is a 162 hp, rich burn, natural gas fired spark ignition emergency generator that provides backup emergency power for the Administration Building in the event of a power outage from the grid. The unit was purchased in May 2006 prior to the effective date of the requirements in 40 CFR Part 60, Subpart JJJJ for Stationary Spark Ignition Internal Combustion Engines. This unit is subject to the requirements applicable to area source RICE MACT Standards (40 CFR Part 63, Subpart ZZZZ).

Specific Conditions

105. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 108 through 120. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
39	Administrative Building Emergency Generator (162 hp)	PM_{10}	0.1	0.1
		$PM_{2.5}$	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	4.4	1.1
		NO_x	2.6	0.7
		Lead	0.01	0.01

106. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 108 through 120. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
39	Administrative Building Emergency Generator (162 hp)	PM	0.1	0.1
		HAPs	0.04	0.01

107. Visible emissions from this source shall not exceed 5% opacity as measured by EPA Reference Method 9. Compliance shall be demonstrated by burning only pipeline quality natural gas at this source. [Rule 18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

108. The permittee shall not operate the emergency generator SN-39 in excess of 500 total hours (emergency and non-emergency) per calendar year in order to demonstrate compliance with the annual emission rate limits. Emergency operation in excess of these hours may be allowable but shall be reported and will be evaluated in accordance with Reg.19.602 and other applicable regulations. [Rule 19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

109. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #108. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The calendar year totals and each individual month's data shall be maintained on-site, made available to Division of Environmental Quality personnel upon request, and submitted in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]

110. The permittee must meet the following maintenance requirements for SN-39: Change oil and filter every 500 hours of operation or annually, whichever comes first; inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [Rule 19.304 and 40 C.F.R. §63.6603(a) and Table 2d, Item 5]

111. The permittee shall be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times and maintain any affected source including any associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. [Rule 19.304 and 40 C.F.R. §63.6605(a&b)]

112. The permittee shall install a non-resettable hour meter if one is not already installed. [Rule 19.304 and 40 C.F.R. §63.6625(f)]

113. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d to this subpart apply. [Rule 19.304 and 40 C.F.R. §63.6625(h)]

114. The permittee has the option of utilizing an oil analysis program at SN-39 in order to extend the specified oil change requirement in Specific Condition #110. The analysis program shall be conducted as required by 40 C.F.R. §63.6625(j). [Rule 19.304 and 40 C.F.R. §63.6625(j)]

115. The permittee must maintain SN-39 according to the manufacturer's emission-related written instructions or develop their own maintenance plan according to 40 C.F.R. 63.6625(e). [Rule 19.304 and 40 C.F.R. § 63.6640(a) and Table 6, Item 9]

116. The permittee shall report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. [Rule 19.304 and 40 C.F.R. § 63.6640(e)]

117. The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [Rule 19.304 and 40 C.F.R. § 63.6640(f)(1,2 & 4)]

a. There is no time limit on the use of emergency stationary RICE in emergency situations. [Rule 19.304 and 40 C.F.R. § 63.6640(f)(1)]

b. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). [Rule 19.304 and 40 C.F.R. § 63.6640(f)(2)]

i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [Rule 19.304 and 40 C.F.R. § 63.6640(f)(2)(i)]

ii. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [Rule 19.304 and 40 C.F.R. § 63.6640(f)(2)(ii)]

iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [Rule 19.304 and 40 C.F.R. § 63.6640(f)(2)(iii)]

c. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [Rule 19.304 and 40 C.F.R. § 63.6640(f)(4)]

i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [Rule 19.304 and 40 C.F.R. § 63.6640(f)(4)(ii)(A-E)]
   i. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
   ii. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
   iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
   iv. The power is provided only to the facility itself or to support the local transmission and distribution system.
   v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

118. The permittee shall submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you. [Rule 19.304 and 40 C.F.R. § 63.6645(a)(2)]

119. Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along

with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [Rule 19.304 and 40 C.F.R. § 63.6650(f)]

120. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in § 63.6640(f)(2)(ii) or (iii) or § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [Rule 19.304 and 40 C.F.R. § 63.6655(f)]

121. All records must be in a form suitable and readily available for expeditious review according to 40 CFR §63.10(b)(1). The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). [Rule 19.304 and 40 C.F.R. § 63.6660]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Gerdau MacSteel Inc. will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future rules and regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Rule 19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Rule 19.410(B) and 40 C.F.R. § 52 Subpart E]

3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Division of Environmental Quality or within 180 days of permit issuance if no date is specified. The permittee must notify the Division of Environmental Quality of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Division of Environmental Quality within sixty (60) calendar days after completing the testing. [Rule 19.702 and/or Rule 18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

4. The permittee must provide:

    a. Sampling ports adequate for applicable test methods;
    b. Safe sampling platforms;
    c. Safe access to sampling platforms; and
    d. Utilities for sampling and testing equipment.

    [Rule 19.702 and/or Rule 18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Rule 19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

6. This permit subsumes and incorporates all previously issued air permits for this facility. [Rule 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

7. Unless otherwise specified in the permit, approval to construct any new major stationary source or a major modification subject to 40 C.F.R. § 52.21 shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Division of Environmental Quality may extend the 18-month period upon a satisfactory showing that an extension is justified. [Rule 19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

8. The permittee shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the production limit increase as requested in the permit application for 0693-AOP-R11and that is emitted by any emissions unit identified in 40 CFR Part 52.21(r)(6)(i)(*b*); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit that regulated NSR pollutant at such emissions unit. [Regulation 19, §19.705 and §19.901; 40 CFR Part 52.21(r)(6)(iii); A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311; and 40 CFR Part 70.6]

9. The permittee shall submit a report to the Administrator if the annual emissions, in tons per year, from the as a result of the production limit increase as requested in the permit application for 0693-AOP-R11, exceed the baseline actual emissions (as documented and maintained pursuant to 40 CFR Part 52.21(r)(6)(i)(*c*)), by a significant amount (as defined in paragraph 40 CFR Part 52.21(b)(23)) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR Part 52.21(r)(6)(i)(*c*). Such report shall be submitted to the Administrator within 60 days after the end of such year. The report shall contain the following:

    a. The name, address and telephone number of the major stationary source;
    b. The annual emissions as calculated pursuant to 40 CFR Part 52.21(r)(6)(iii); and
    c. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

    [Regulation 19, §19.705 and §19.901; 40 CFR Part 52.21(r)(6)(v); A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311; and 40 CFR Part 70.6]

10. A reasonable possibility for NO_x exists for the EAF replacement project of 0693-AOP-R15. The permittee shall monitor the emissions of NO_x and that is emitted by any emissions unit identified in 40 CFR Part 52.21(r)(6)(i)(*b*); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit that regulated NSR pollutant at such emissions

unit. [Regulation 19, §19.705 and §19.901; 40 CFR Part 52.21(r)(6)(iii); A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311; and 40 CFR Part 70.6]

11. The permittee shall submit a report to the Administrator if the annual emissions, in tons per year, from the as a result of the for the EAF replacement project of 0693-AOP-R15, exceed the baseline actual emissions (as documented and maintained pursuant to 40 CFR Part 52.21(r)(6)(i)(*c*)), by a significant amount (as defined in paragraph 40 CFR Part 52.21(b)(23)) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR Part 52.21(r)(6)(i)(*c*). Such report shall be submitted to the Administrator within 60 days after the end of such year. The report shall contain the following:

    a. The name, address and telephone number of the major stationary source;
    b. The annual emissions as calculated pursuant to 40 CFR Part 52.21(r)(6)(iii); and
    c. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

    [Regulation 19, §19.705 and §19.901; 40 CFR Part 52.21(r)(6)(v); A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311; and 40 CFR Part 70.6]

SECTION VII: INSIGNIFICANT ACTIVITIES

The Division of Environmental Quality deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Rule 18 and Rule 19 Appendix A. Group B insignificant activities may be listed but are not required to be listed in permits. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated February 1, 2021. [Rule 26.304 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Description	Category
Kerosene Tank (500 gal)	A-3
Used (waste) Oil Tank (1,500 gal)	A-3
2 Used (waste) Oil Tanks (5,000 gal each)	A-3
Diesel Fuel Tank (10,000 gal)	A-3
Diesel Fuel Tank (2,000 gal)	A-3
Diesel Fuel Tank (500 gal)	A-3
2 Petroleum Resin Tanks (5,000 gal each)	A-3
Petroleum Resin Tank (1,500 gal)	A-3
Cationic Polymer Tank (2,200 gal)	A-3
Lab Etch Room	A-5
SPARCS Cutting Enclosure	A-7
Outdoor Slicing/Cutting	A-7
Scale Water Cooling Tower	A-13
Clean Water Cooling Tower #1	A-13
Clean Water Cooling Tower #2	A-13
Caster Water Cooling Tower	A-13
EMS Water Cooling Tower	A-13
Rolling Mill Operations	A-13
Hot Saw for Rolled Product	A-13
Ladle Refractory Reline	A-13
Tundish Refractory Reline	A-13

Description	Category
Scrap Handling	A-13
Raw Material Handling	A-13
Parts Washers	A-13
Scale Pits	A-13
Settling Ponds	A-13

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Rule 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Rule 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Rule 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 70.6(b)(2)]

2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 C.F.R. § 70.6(a)(2) and Rule 26.701(B)]

3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Division of Environmental Quality takes final action on the renewal application. The Division of Environmental Quality will not necessarily notify the permittee when the permit renewal application is due. [Rule 26.406]

4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 C.F.R. § 70.6(a)(1)(ii) and Rule 26.701(A)(2)]

5. The permittee must maintain the following records of monitoring information as required by this permit.

    a. The date, place as defined in this permit, and time of sampling or measurements;
    b. The date(s) analyses performed;
    c. The company or entity performing the analyses;
    d. The analytical techniques or methods used;
    e. The results of such analyses; and
    f. The operating conditions existing at the time of sampling or measurement.

[40 C.F.R. § 70.6(a)(3)(ii)(A) and Rule 26.701(C)(2)]

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 C.F.R. § 70.6(a)(3)(ii)(B) and Rule 26.701(C)(2)(b)]

7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Rule 26.2 must certify all required reports. The permittee will send the reports electronically using https://eportal.adeq.state.ar.us or mail them to the address below:

Division of Environmental Quality
Office of Air Quality
ATTN: Compliance Inspector Supervisor
5301 Northshore Drive
North Little Rock, AR 72118-5317

[40 C.F.R. § 70.6(a)(3)(iii)(A) and Rule 26.701(C)(3)(a)]

8. The permittee shall report to the Division of Environmental Quality all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.

   a. For all upset conditions (as defined in Rule 19.601), the permittee will make an initial report to the Division of Environmental Quality by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:

      i. The facility name and location;
      ii. The process unit or emission source deviating from the permit limit;
      iii. The permit limit, including the identification of pollutants, from which deviation occurs;
      iv. The date and time the deviation started;

v. The duration of the deviation;
vi. The emissions during the deviation;
vii. The probable cause of such deviations;
viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and
ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Division of Environmental Quality within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Rule 19.601, Rule 19.602, Rule 26.701(C)(3)(b), and 40 C.F.R. § 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Rule are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), Rule 26.701(E), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Rule 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. § 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 C.F.R. § 70.6(a)(6)(i) and Rule 26.701(F)(1)]

11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 C.F.R. § 70.6(a)(6)(ii) and Rule 26.701(F)(2)]

12. The Division of Environmental Quality may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of

planned changes or anticipated noncompliance does not stay any permit condition. [40 C.F.R. § 70.6(a)(6)(iii) and Rule 26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and Rule 26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Division of Environmental Quality may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 C.F.R. § 70.6(a)(6)(v) and Rule 26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Rule 9. [40 C.F.R. § 70.6(a)(7) and Rule 26.701(G)]

16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 C.F.R. § 70.6(a)(8) and Rule 26.701(H)]

17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 C.F.R. § 70.6(a)(9)(i) and Rule 26.701(I)(1)]

18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Division of Environmental Quality specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 C.F.R. § 70.6(b) and Rule 26.702(A) and (B)]

19. Any document (including reports) required by this permit pursuant to 40 C.F.R. § 70 must contain a certification by a responsible official as defined in Rule 26.2. [40 C.F.R. § 70.6(c)(1) and Rule 26.703(A)]

20. The permittee must allow an authorized representative of the Division of Environmental Quality, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Rule 26.703(B)]

    a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually. If the permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due on the first day of the second month after the end of the reporting period. The permittee must also submit the compliance certification to the Administrator as well as to the Division of Environmental Quality. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and Rule 26.703(E)(3)]

a. The identification of each term or condition of the permit that is the basis of the certification;
b. The compliance status;
c. Whether compliance was continuous or intermittent;
d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
e. Such other facts as the Division of Environmental Quality may require elsewhere in this permit or by § 114(a)(3) and § 504(b) of the Act.

22. Nothing in this permit will alter or affect the following: [Rule 26.704(C)]

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
c. The applicable requirements of the acid rain program, consistent with § 408(a) of the Act; or
d. The ability of EPA to obtain information from a source pursuant to § 114 of the Act.

23. This permit authorizes only those pollutant emitting activities addressed in this permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Division of Environmental Quality

approval. The Division of Environmental Quality may grant such a request, at its discretion in the following circumstances:

a. Such an extension does not violate a federal requirement;
b. The permittee demonstrates the need for the extension; and
c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Rule 18.314(A), Rule 19.416(A), Rule 26.1013(A), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Division of Environmental Quality approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:

a. Such a request does not violate a federal requirement;
b. Such a request is temporary in nature;
c. Such a request will not result in a condition of air pollution;
d. The request contains such information necessary for the Division of Environmental Quality to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Rule 18.314(B), Rule 19.416(B), Rule 26.1013(B), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Division of Environmental Quality approval. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:

a. The request does not violate a federal requirement;
b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Rule 18.314(C), Rule 19.416(C), Rule 26.1013(C), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

27. Any credible evidence based on sampling, monitoring, and reporting may be used to determine violations of applicable emission limitations. [Rule 18.1001, Rule 19.701, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

Appendix A

CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS

Division of Environmental Quality

Office of Air Quality

12/3/2020

PREAMBLE

These conditions are intended to outline the requirements for facilities required to operate Continuous Emission Monitoring Systems/Continuous Opacity Monitoring Systems (CEMS/COMS). Generally, there are three types of sources required to operate CEMS/COMS:

1. CEMS/COMS required by 40 C.F.R. § 60 or 63.
2. CEMS required by 40 C.F.R § 75.
3. CEMS/COMS required by permit for reasons other than § 60, 63 or 75.

These CEMS/COMS conditions are not intended to supersede 40 C.F.R. § 60, 63 or 75 requirements.

- Only CEMS/COMS in the third category (those required by the Arkansas Department of Energy and Environment's (Department) Division of Environmental Quality (DEQ) permit for reasons other than 40 C.F.R. § 60, 63 or 75) shall comply with SECTION II, MONITORING REQUIREMENTS and SECTION IV, QUALITY ASSURANCE/QUALITY CONTROL.
- All CEMS/COMS shall comply with Section III, NOTIFICATION AND RECORDKEEPING.

SECTION I

DEFINITIONS

Continuous Emission Monitoring System (CEMS) – The total equipment required for the determination of a gas concentration and/or emission rate so as to include sampling, analysis and recording of emission data.

Continuous Opacity Monitoring System (COMS) – The total equipment required for the determination of opacity as to include sampling, analysis and recording of emission data.

Calibration Drift (CD) – The difference in the CEMS output reading from the established reference value after a stated period of operation during which no uns cheduled maintenance, repair, or adjustments took place.

Back-up CEMS (Secondary CEMS) – A CEMS with the ability to sample, analyze and record stack pollutant to determine gas concentration and/or emission rate. This CEMS is to serve as a back-up to the primary CEMS to minimize monitor downtime.

Excess Emissions – Any period in which the emissions exceed the permit limits.

Monitor Downtime – Any period during which the CEMS/COMS is unable to sample, analyze and record a minimum of four evenly spaced data points over an hour, except during one daily zero-span check during which two data points per hour are sufficient.

Out-of-Control Period – Begins with the time corresponding to the completion of the fifth, consecutive, daily CD check with a C D in excess of two times the allowable limit, or the time corresponding to the completion of the daily CD check preceding the daily CD check that results in a CD in excess of four times the allowable limit and the time corresponding to the completion of the sampling for the Relative Accuracy Test Audit (RATA), Relative Accuracy Audit (RAA), or Cylinder Gas Audit (CGA) which exceeds the limits outlined in Section IV. Out-of-Control Period ends with the time corresponding to the completion of the CD check following corrective action with the results being within the allowable CD limit or the completion of the sampling of the subsequent successful RATA, RAA, or CGA.

Primary CEMS – The main reporting CEMS with the ability to sample, analyze, and record stack pollutant to determine gas concentration and/or emission rate.

Relative Accuracy (RA) – The absolute mean difference between the gas concentration or emission rate determined by the CEMS and the value determined by the reference method plus the 2.5 percent error confidence coefficient of a series of tests divided by the mean of the reference method tests of the applicable emission limit.

Span Value – The upper limit of a gas concentration measurement range.

SECTION II

MONITORING REQUIREMENTS

** Only CEMS/COMS required by DEQ permit for reasons other than 40 C.F.R. § 60, 63 or 75 shall comply with this section.

A. For new sources, the installation date for the CEMS/COMS shall be no later than thirty (30) days from the date of start-up of the source.

B. For existing sources, the installation date for the CEMS/COMS shall be no later than sixty (60) days from the issuance of the permit unless the permit requires a specific date.

C. Within sixty (60) days of installation of a CEMS/COMS, a performance specification test (PST) must be completed. PST's are defined in 40 C.F.R. § 60, Appendix B, PS 1-9. DEQ may accept alternate PST's for pollutants not covered by Appendix B on a case-by-case basis. Alternate PST's shall be approved, in writing, by the DEQ CEM Coordinator prior to testing.

D. Each CEMS/COMS shall have, as a minimum, a daily zero-span check. The zero-span shall be adjusted whenever the 24-hour zero or 24-hour span drift exceeds two times the limits in the applicable performance specification in 40 C.F.R, § 60, Appendix B. Before any adjustments are made to either the zero or span drifts measured at the 24-hour interval, the excess zero and span drifts measured must be quantified and recorded.

E. All CEMS/COMS shall be in continuous operation and shall meet minimum frequency of operation requirements of 95% up-time for each quarter for each pollutant measured. Percent of monitor down-time is calculated by dividing the total minutes the monitor is not in operation by the total time in the calendar quarter and multiplying by one hundred. Failure to maintain operation time shall constitute a violation of the CEMS conditions.

F. Percent of excess emissions are calculated by dividing the total minutes of excess emissions by the total time the source operated and multiplying by one hundred. Failure to maintain compliance may constitute a violation of the CEMS conditions.

G. All CEMS measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen-minute period unless more cycles are required by the permit. For each CEMS, one-hour averages shall be computed from four or more data points equally spaced over each one-hour period unless more data points are required by the permit.

H. All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

I. When the pollutant from a single affected facility is released through more than one point, a CEMS/COMS shall be installed on each point unless installation of fewer systems is approved, in writing, by the DEQ CEM Coordinator. When more than one CEM/COM is used to monitor emissions from one affected facility the owner or operator shall report the results as required from each CEMS/COMS.

SECTION III

NOTIFICATION AND RECORD KEEPING

** All CEMS/COMS shall comply with this section.

A. When requested to do so by an owner or operator, the DEQ CEM Coordinator will review plans for installation or modification for the purpose of providing technical advice to the owner or operator.

B. Each facility which operates a CEMS/COMS shall notify the DEQ CEM Coordinator of the date for which the demonstration of the CEMS/COMS performance will commence (i.e. PST, RATA, RAA, CGA). Notification shall be received in writing no less than 15 business days prior to testing. Performance test results shall be submitted to DEQ within thirty days after completion of testing.

C. Each facility which operates a CEMS/COMS shall maintain records of the occurrence and duration of start up/shut down, cleaning/soot blowing, process problems, fuel problems, or other malfunction in the operation of the affected facility which causes excess emissions. This includes any malfunction of the air pollution control equipment or any period during which a continuous monitoring device/system is inoperative.

D. Each facility required to install a CEMS/COMS shall submit an excess emission and monitoring system performance report to DEQ (Attention: DEQ, Office of Air Quality, CEM Coordinator) at least quarterly, unless more frequent submittals are warranted to assess the compliance status of the facility. Quarterly reports shall be postmarked no later than the 30th day of the month following the end of each calendar quarter.

E. All excess emissions shall be reported in terms of the applicable standard. Each report shall be submitted on DEQ Quarterly Excess Emission Report Forms. Alternate forms may be used with prior written approval from DEQ.

F. Each facility which operates a CEMS/COMS must maintain on site a file of CEMS/COMS data including all raw data, corrected and adjusted, repair logs, calibration checks, adjustments, and test audits. This file must be retained for a period of at least five years and is required to be maintained in such a condition that it can easily be audited by an inspector.

G. Quarterly reports shall be used by DEQ to determine compliance with the permit.

SECTION IV

QUALITY ASSURANCE/QUALITY CONTROL

** Only CEMS/COMS required by DEQ permit for reasons other than 40 C.F.R. § 60, 63 or 75 shall comply with this section.

A. For each CEMS/COMS a Quality Assurance/Quality Control (QA/QC) plan shall be submitted to DEQ (Attn.: DEQ, Office of Air Quality, CEM Coordinator). CEMS quality assurance procedures are defined in 40 C.F.R. § 60, Appendix F. This plan shall be submitted within 180 days of the CEMS/COMS installation. A QA/QC plan shall consist of procedure and practices which assures acceptable level of monitor data accuracy, precision, representativeness, and availability.

B. The submitted QA/QC plan for each CEMS/COMS shall not be considered as accepted until the facility receives a written notification of acceptance from DEQ.

C. Facilities responsible for one or more CEMS/COMS used for compliance monitoring shall meet these minimum requirements and are encouraged to develop and implement a more extensive QA/QC program, or to continue such programs where they already exist. Each QA/QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:

1. Calibration of CEMS/COMS
    a. Daily calibrations (including the approximate time(s) that the daily zero and span drifts will be checked, and the time required to perform these checks and return to stable operation)
2. Calibration drift determination and adjustment of CEMS/COMS
    a. Out-of-control period determination
    b. Steps of corrective action
3. Preventive maintenance of CEMS/COMS
    a. CEMS/COMS information
        1) Manufacture
        2) Model number
        3) Serial number
    b. Scheduled activities (check list)
    c. Spare part inventory
4. Data recording, calculations, and reporting
5. Accuracy audit procedures including sampling and analysis methods
6. Program of corrective action for malfunctioning CEMS/COMS

D. A Relative Accuracy Test Audit (RATA) shall be conducted at least once every four calendar quarters. A Relative Accuracy Audit (RAA), or a Cylinder Gas Audit (CGA), may be conducted in the other three quarters but in no more than three quarters in succession. The RATA should be conducted in accordance with the applicable test procedure in 40 C.F.R. § 60 Appendix A and calculated in accordance with the applicable performance specification in 40 C.F.R. § 60 Appendix B. CGA's and RAA's should be conducted and the data calculated in accordance with the procedures outlined on 40 C.F.R. § 60 Appendix F.

If alternative testing procedures or methods of calculation are to be used in the RATA, RAA or CGA audits prior authorization must be obtained from the DEQ CEM Coordinator.

E. Criteria for excessive audit inaccuracy.

RATA

All Pollutants except Carbon Monoxide	> 20% Relative Accuracy
Carbon Monoxide	> 10% Relative Accuracy
All Pollutants except Carbon Monoxide	> 10% of the Applicable Standard
Carbon Monoxide	> 5% of the Applicable Standard
Diluent (O_2 & CO_2)	> 1.0 % O_2 or CO_2
Flow	> 20% Relative Accuracy

CGA

Pollutant	> 15% of average audit value or 5 ppm difference
Diluent (O_2 & CO_2)	> 15% of average audit value or 5 ppm difference

RAA

Pollutant	> 15% of the three-run average or > 7.5 % of the applicable standard
Diluent (O_2 & CO_2)	> 15% of the three-run average or > 7.5 % of the applicable standard

F. If either the zero or span drift results exceed two times the applicable drift specification in 40 C.F.R. § 60, Appendix B for five consecutive, daily periods, the CEMS is out-of-control. If either the zero or span drift results exceed four times the applicable drift specification in Appendix B during a calibration drift check, the CEMS is out-of-control. If the CEMS exceeds the audit inaccuracies listed above, the CEMS is out-of-control. If a CEMS is out-of-control, the data from that out-of-control period is not counted towards meeting the minimum data availability as required and described in the applicable subpart. The end of the out-of-control period is the time corresponding to the completion of the successful daily zero or span drift or completion of the successful CGA, RAA or RATA.

G. A back-up monitor may be placed on an emission source to minimize monitor downtime. This back-up CEMS is subject to the same QA/QC procedure and practices as the primary CEMS. The back-up CEMS shall be certified by a PST. Daily zero-span checks must be performed and recorded in accordance with standard practices. When the primary CEMS goes down, the back-up CEMS may then be engaged to sample, analyze, and record the emission source pollutant until repairs are made and the primary unit is placed back in service. Records must be maintained on site when the back-up CEMS is placed in service, these records shall include at a minimum the reason the primary CEMS is out of service, the date and time the primary CEMS was out of service and the date and time the primary CEMS was placed back in service.

Appendix B

Subpart AAa—Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983

Contents

SOURCE: 49 FR 43845, Oct. 31, 1984, unless otherwise noted.

§60.270a Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in steel plants that produce carbon, alloy, or specialty steels: electric arc furnaces, argon-oxygen decarburization vessels, and dust-handling systems.

(b) The provisions of this subpart apply to each affected facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after August 17, 1983.

§60.271a Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Argon-oxygen decarburization vessel (AOD vessel) means any closed-bottom, refractory-lined converter vessel with submerged tuyeres through which gaseous mixtures containing argon and oxygen or nitrogen may be blown into molten steel for further refining.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other conditions that result in increases in particulate loadings. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Capture system means the equipment (including ducts, hoods, fans, dampers, etc.) used to capture or transport particulate matter generated by an electric arc furnace or AOD vessel to the air pollution control device.

Charge means the addition of iron and steel scrap or other materials into the top of an electric arc furnace or the addition of molten steel or other materials into the top of an AOD vessel.

Control device means the air pollution control equipment used to remove particulate matter from the effluent gas stream generated by an electric arc furnace or AOD vessel.

Direct-shell evacuation control system (DEC system) means a system that maintains a negative pressure within the electric arc furnace above the slag or metal and ducts emissions to the control device.

Dust-handling system means equipment used to handle particulate matter collected by the control device for an electric arc furnace or AOD vessel subject to this subpart. For the purposes of this subpart, the dust-handling system shall consist of the control device dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment.

Electric arc furnace (EAF) means a furnace that produces molten steel and heats the charge materials with electric arcs from carbon electrodes. For the purposes of this subpart, an EAF shall consist of the furnace shell and roof and the transformer. Furnaces that continuously feed direct-reduced iron ore pellets as the primary source of iron are not affected facilities within the scope of this definition.

Heat cycle means the period beginning when scrap is charged to an empty EAF and ending when the EAF tap is completed or beginning when molten steel is charged to an empty AOD vessel and ending when the AOD vessel tap is completed.

Meltdown and refining period means the time period commencing at the termination of the initial charging period and ending at the initiation of the tapping period, excluding any intermediate charging periods and times when power to the EAF is off.

Melting means that phase of steel production cycle during which the iron and steel scrap is heated to the molten state.

Negative-pressure fabric filter means a fabric filter with the fans on the downstream side of the filter bags.

Positive-pressure fabric filter means a fabric filter with the fans on the upstream side of the filter bags.

Refining means that phase of the steel production cycle during which undesirable elements are removed from the molten steel and alloys are added to reach the final metal chemistry.

Shop means the building which houses one or more EAF's or AOD vessels.

Shop opacity means the arithmetic average of 24 observations of the opacity of emissions from the shop taken in accordance with Method 9 of appendix A of this part.

Tap means the pouring of molten steel from an EAF or AOD vessel.

Tapping period means the time period commencing at the moment an EAF begins to pour molten steel and ending either three minutes after steel ceases to flow from an EAF, or six minutes after steel begins to flow, whichever is longer.

[49 FR 43845, Oct. 31, 1984, as amended at 64 FR 10110, Mar. 2, 1999; 70 FR 8532, Feb. 22, 2005]

§60.272a Standard for particulate matter.

(a) On and after the date of which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an EAF or an AOD vessel any gases which:

(1) Exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf);

(2) Exit from a control device and exhibit 3 percent opacity or greater; and

(3) Exit from a shop and, due solely to the operations of any affected EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity or greater.

§60.273a Emission monitoring.

(a) Except as provided under paragraphs (b) and (c) of this section, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the owner or operator subject to the provisions of this subpart.

(b) No continuous monitoring system shall be required on any control device serving the dust-handling system.

(c) A continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) is not required on any modular, multi-stack, negative-pressure or positive-pressure fabric filter if observations of the opacity of the visible emissions from the control device are performed by a certified visible emission observer; or on

any single-stack fabric filter if visible emissions from the control device are performed by a certified visible emission observer and the owner installs and continuously operates a bag leak detection system according to paragraph (e) of this section. Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the melting and refining period. All visible emissions observations shall be conducted in accordance with Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified in §60.272a(a).

(d) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as follows: Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

(e) A bag leak detection system must be installed and continuously operated on all single-stack fabric filters if the owner or operator elects not to install and operate a continuous opacity monitoring system as provided for under paragraph (c) of this section. In addition, the owner or operator shall meet the visible emissions observation requirements in paragraph (c) of this section. The bag leak detection system must meet the specifications and requirements of paragraphs (e)(1) through (8) of this section.

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (*e.g.,* using a strip chart recorder or a data logger.)

(3) The bag leak detection system must be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to paragraph (e)(4) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(4) For each bag leak detection system required by paragraph (e) of this section, the owner or operator shall develop and submit to the Administrator or delegated authority, for approval, a site-specific monitoring plan that addresses the items identified in paragraphs (i) through (v) of this paragraph (e)(4). For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe the following:

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system including quality assurance procedures;

(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and

(v) How the bag leak detection system output shall be recorded and stored.

(5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

(6) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided for in paragraphs (e)(6)(i) and (ii) of this section.

(i) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under paragraphs (e)(4) of this section.

(ii) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under paragraph (c) of this section and the alarm on the bag leak detection system does not sound, the owner or operator shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.

(7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(f) For each bag leak detection system installed according to paragraph (e) of this section, the owner or operator shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for under paragraph (g) of this section, the cause of the alarm must be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:

(1) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;

(2) Sealing off defective bags or filter media;

(3) Replacing defective bags or filter media or otherwise repairing the control device;

(4) Sealing off a defective baghouse compartment;

(5) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; and

(6) Shutting down the process producing the particulate emissions.

(g) In approving the site-specific monitoring plan required in paragraph (e)(4) of this section, the Administrator or delegated authority may allow owners or operators more than 3 hours to alleviate specific conditions that cause an alarm if the owner or operator identifies the condition that could lead to an alarm in the monitoring plan, adequately explains why it is not feasible to alleviate the condition within 3 hours of the time the alarm occurred, and demonstrates that the requested additional time will ensure alleviation of the condition as expeditiously as practicable.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6672, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 70 FR 8532, Feb. 22, 2005]

§60.274a Monitoring of operations.

(a) The owner or operator subject to the provisions of this subpart shall maintain records of the following information:

(1) All data obtained under paragraph (b) of this section; and

(2) All monthly operational status inspections performed under paragraph (c) of this section.

(b) Except as provided under paragraph (e) of this section, the owner or operator subject to the provisions of this subpart shall check and record on a once-per-shift basis the furnace static pressure (if DEC system is in use, and a furnace static pressure gauge is installed according to paragraph (f) of this section) and either: check and record the control system fan motor amperes

and damper position on a once-per-shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The Administrator may require the owner or operator to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of appendix A of this part.

(c) When the owner or operator of an affected facility is required to demonstrate compliance with the standards under §60.272a(a)(3) and at any other time that the Administrator may require (under section 114 of the CAA, as amended) either: the control system fan motor amperes and all damper positions, the volumetric flow rate through each separately ducted hood, or the volumetric flow rate at the control device inlet and all damper positions shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the affected facility subject to paragraph (b) of this section. The owner or operator may petition the Administrator for reestablishment of these parameters whenever the owner or operator can demonstrate to the Administrator's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Operation at other than baseline values may be subject to the requirements of §60.276a(c).

(d) Except as provided under paragraph (e) of this section, the owner or operator shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (*i.e.*, pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

(e) The owner or operator may petition the Administrator to approve any alternative to either the monitoring requirements specified in paragraph (b) of this section or the monthly operational status inspections specified in paragraph (d) of this section if the alternative will provide a continuous record of operation of each emission capture system.

(f) Except as provided for under §60.273a(d), if emissions during any phase of the heat time are controlled by the use of a DEC system, the owner or operator shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

(g) Except as provided for under §60.273a(d), when the owner or operator of an EAF controlled by a DEC is required to demonstrate compliance with the standard under §60.272a(a)(3), and at any other time the Administrator may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the meltdown and refining period(s) using the monitoring device required under paragraph (f) of this section. The owner or operator may petition the Administrator for reestablishment of the pressure whenever the owner or operator can demonstrate to the Administrator's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility.

(h) During any performance test required under §60.8, and for any report thereof required by §60.276a(f) of this subpart, or to determine compliance with §60.272a(a)(3) of this subpart, the owner or operator shall monitor the following information for all heats covered by the test:

(1) Charge weights and materials, and tap weights and materials;

(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF when direct-shell evacuation control systems are used;

(3) Control device operation log; and

(4) Continuous opacity monitor or Method 9 data.

[49 FR 43845, Oct. 31, 1984, as amended at 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]

§60.275a Test methods and procedures.

(a) During performance tests required in §60.8, the owner or operator shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector, unless the amount of dilution is separately determined and considered in the determination of emissions.

(b) When emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system and control device, the owner or operator shall use either or both of the following procedures during a performance test (see also §60.276a(e)):

(1) Determine compliance using the combined emissions.

(2) Use a method that is acceptable to the Administrator and that compensates for the emissions from the facilities not subject to the provisions of this subpart.

(c) When emission from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart, the owner or operator shall demonstrate compliance with §60.272(a)(3) based on emissions from only the affected facility(ies).

(d) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(e) The owner or operator shall determine compliance with the particulate matter standards in §60.272a as follows:

(1) Method 5 shall be used for negative-pressure fabric filters and other types of control devices and Method 5D shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf) and, when a single EAF or AOD vessel is sampled, the sampling time shall include an integral number of heats.

(2) When more than one control device serves the EAF(s) being tested, the concentration of particulate matter shall be determined using the following equation:

$$c_{st} = \left[\sum_{i=1}^{n} (c_{si} Q_{sdi})\right] \sum_{i=1}^{n} Q_{sdi}$$

where:

c_{st} = average concentration of particulate matter, mg/dscm (gr/dscf).

c_{si} = concentration of particulate matter from control device “i”, mg/dscm (gr/dscf).

n=total number of control devices tested.

Q_{sdi} = volumetric flow rate of stack gas from control device “i”, dscm/hr (dscf/hr).

(3) Method 9 and the procedures of §60.11 shall be used to determine opacity.

(4) To demonstrate compliance with §60.272a(a) (1), (2), and (3), the Method 9 test runs shall be conducted concurrently with the particulate matter test runs, unless inclement weather interferes.

(f) To comply with §60.274a (c), (f), (g), and (h), the owner or operator shall obtain the information required in these paragraphs during the particulate matter runs.

(g) Any control device subject to the provisions of the subpart shall be designed and constructed to allow measurement of emissions using applicable test methods and procedures.

(h) Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system

and control device, the owner or operator may use any of the following procedures during a performance test:

(1) Base compliance on control of the combined emissions;

(2) Utilize a method acceptable to the Administrator that compensates for the emissions from the facilities not subject to the provisions of this subpart, or;

(3) Any combination of the criteria of paragraphs (h)(1) and (h)(2) of this section.

(i) Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart, determinations of compliance with §60.272a(a)(3) will only be based upon emissions originating from the affected facility(ies).

(j) Unless the presence of inclement weather makes concurrent testing infeasible, the owner or operator shall conduct concurrently the performance tests required under §60.8 to demonstrate compliance with §60.272a(a) (1), (2), and (3) of this subpart.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6673, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 65 FR 61758, Oct. 17, 2000]

§60.276a Recordkeeping and reporting requirements.

(a) Records of the measurements required in §60.274a must be retained for at least 2 years following the date of the measurement.

(b) Each owner or operator shall submit a written report of exceedances of the control device opacity to the Administrator semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater.

(c) Operation at a furnace static pressure that exceeds the value established under §60.274a(g) and either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under §60.274a(c) or operation at flow rates lower than those established under §60.274a(c) may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Administrator semiannually.

(d) The requirements of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State.

(e) When the owner or operator of an EAF or AOD is required to demonstrate compliance with the standard under §60.275 (b)(2) or a combination of (b)(1) and (b)(2) the owner or operator shall obtain approval from the Administrator of the procedure(s) that will be used to determine

compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test.

(f) For the purpose of this subpart, the owner or operator shall conduct the demonstration of compliance with §60.272a(a) of this subpart and furnish the Administrator a written report of the results of the test. This report shall include the following information:

(1) Facility name and address;

(2) Plant representative;

(3) Make and model of process, control device, and continuous monitoring equipment;

(4) Flow diagram of process and emission capture equipment including other equipment or process(es) ducted to the same control device;

(5) Rated (design) capacity of process equipment;

(6) Those data required under §60.274a(h) of this subpart;

(i) List of charge and tap weights and materials;

(ii) Heat times and process log;

(iii) Control device operation log; and

(iv) Continuous opacity monitor or Method 9 data.

(7) Test dates and test times;

(8) Test company;

(9) Test company representative;

(10) Test observers from outside agency;

(11) Description of test methodology used, including any deviation from standard reference methods;

(12) Schematic of sampling location;

(13) Number of sampling points;

(14) Description of sampling equipment;

(15) Listing of sampling equipment calibrations and procedures;

(16) Field and laboratory data sheets;

(17) Description of sample recovery procedures;

(18) Sampling equipment leak check results;

(19) Description of quality assurance procedures;

(20) Description of analytical procedures;

(21) Notation of sample blank corrections; and

(22) Sample emission calculations.

(g) The owner or operator shall maintain records of all shop opacity observations made in accordance with §60.273a(d). All shop opacity observations in excess of the emission limit specified in §60.272a(a)(3) of this subpart shall indicate a period of excess emission, and shall be reported to the administrator semi-annually, according to §60.7(c).

(h) The owner or operator shall maintain the following records for each bag leak detection system required under §60.273a(e):

(1) Records of the bag leak detection system output;

(2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(3) An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6673, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]