West Virginia Department of Environmental Protection
Harold D. Ward
Cabinet Secretary

Construction Permit

R14-0039

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Nucor Steel West Virginia LLC
West Virginia Steel Mill
053-00085

Laura M. Crowder

Laura M. Crowder
Director, Division of Air Quality

Laura M. Crowder

Digitally signed by: Laura M. Crowder
DN: CN = Laura M. Crowder email = Laura.M.Crowder@wv.gov C = US O = West Virginia Department of Environmental Protection OU = Division of Air Quality
Date: 2022.05.05 12:15:00 -04'00'

Issued: May 5, 2022

Facility Location:	Near Apple Grove, Mason County, WV
Mailing Address:	1915 Rexford Road, Charlotte, NC 28211
Facility Description:	Sheet Steel Mill
SIC/NAICS Code:	3312/331110
UTM Coordinates:	Easting: 398.20 km • Northing: 4,278.87 km • Zone: 17
Latitude/Longitude:	38.65536/-82.16853
Permit Type:	Construction
Description:	Construction of a 3,000,000 tons per year sheet steel mill.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The facility is a major source subject to 45CSR30. The Title V (45CSR30) application will be due within twelve (12) months after the commencement date of any operation authorized by this permit.

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Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[(1)]
Raw Material Storage & Handling					
Scrap Storage & Handling					
SCRAP-RAIL	Fugitives	Railcar Scrap Unloading	New	200 TPH	n/a
SCRAP-DOCK	Fugitives	Barge Scrap Unloading	New	600 TPH	n/a
SCRAP-BULK34	Fugitives	Barge Scrap Pile Loading	New	600 TPH	n/a
SCRAP-BULK35	Fugitives	Barge Scrap Pile Loadout	New	275 TPH	n/a
SCRAP-BULK36	Fugitives	Rail Scrap Pile Loading	New	120 TPH	n/a
SCRAP-BULK37	Fugitives	Rail Scrap Pile Loadout	New	275 TPH	n/a
SCRAP-BULK38	Fugitives	Truck Scrap Pile Loading	New	200 TPH	n/a
SCRAP-BULK39	Fugitives	Truck Scrap Pile Loadout	New	275 TPH	n/a
SCRAP-BULK40	Fugitives	Scrap Charging	New	220 TPH	n/a
SCRPSKP1	Fugitives	Scrap Metal Stockpile 1	New	81,809 ft^2	WS
SCRPSKP2	Fugitives	Scrap Metal Stockpile 2	New	81,809 ft^2	WS
SCRPSKP3	Fugitives	Scrap Metal Stockpile 3	New	81,809 ft^2	WS
Lime, Carbon, and Alloy Storage & Handling					
LIME-DUMP	LIME-DUMP-ST	Lime Dump Station	New	8 TPH	LIME-BH
	Fugitives				PE
CARBON-DUMP	CARBON-DUMP-ST	Carbon Dump Station	New	4 TPH	CARBON-BH
	Fugitives				PE
ALLOY-HANDLE	ALLOY-HANDLE-ST	Alloy Handling System	New	20 TPH	ALLOY-BH
	Fugitives				PE
LCB	LCB-ST	Lime, Carbon, and Alloy Silos	New	n/a	LCB-BH
Direct Reduced Iron (DRI) Storage & Handling					
DRI-DOCK	Fugitives	DRI Unloading Dock	New	500 TPH	PE
	DRI-DOCK-ST				DRI-DOCK-BH
DRI1	DRIVF1	DRI Storage Silo 1	New	64 TPH	DRI1-BH
	DRIBV1				DRI1-BV
DRI2	DRIVF2	DRI Storage Silo 2	New	64 TPH	DRI2-BH
	DRIBV2				DRI2-BV

Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
DRI3	DRIVF3	DRI Storage Silo 3	New	64 TPH	DRI3-BH
	DRIBV3				DRI3-BV
DRI4	DRIVF4	DRI Storage Silo 4	New	64 TPH	DRI4-BH
	DRIBV4				DRI4-BV
DRI-DB1	DRI-DB1-BH	DRI Day Bin 1	New	64 TPH	DRI-DB1-BH
DRI-DB2	DRI-DB2-BH	DRI Day Bin 2	New	64 TPH	DRI-DB2-BH
BULK-DRI	BULK-DRI-1	DRI Silo 1 Loadout	New	64 TPH	PE
	BULK-DRI-2	DRI Silo 2 Loadout		64 TPH	PE
	BULK-EMG-1	DRI Conveyer 1 Emergency Chute		125 TPH	None
	BULK-EMG-2	DRI Silos Emergency Chute		800 TPH	None
DRI-CONV	DRI-CONV-BH	DRI Transfer Conveyers	New	64 TPH	DRI-CONV-BH
Haulraods					
FUGD-PAVED-01P through 10P	Fugitives	Paved Haulroads 1P - 10P	New	n/a	WS
FUGD-UNPAVED-1UP through 19U	Fugitives	Unpaved Haulroads 11U - 19U	New	n/a	WS
Melt Shop					
EAF1	BHST-1	Electric Arc Furnace 1	New	171 TPH, 22.18 mmBtu/hr[2]	EAF1-BH
	MSFUG				n/a
LMF1	BHST-1	Ladle Metallurgy Furnace 1	New	171 TPH	EAF1-BH
CAST1	BHST-1	Caster 1	New	171 TPH	EAF1-BH
	CASTFUG				n/a
EAF2	BHST-2	Electric Arc Furnace 2	New	171 TPH, 22.18 mmBtu/hr[2]	EAF2-BH
	MSFUG				n/a
LMF2	BHST-2	Ladle Metallurgy Furnace 2	New	171 TPH	EAF2-BH
CAST2	BHST-2	Caster 2	New	171 TPH	EAF2-BH
	CASTFUG				n/a
LD	MSFUG	Ladle Dryer	New	15 mmBtu/hr	n/a
EAFVF1	EAFVF1	EAF Baghouse 1 Dust Silo	New	0.84 TPH	EAFVF1-BV
EAFVF2	EAFVF2	EAF Baghouse 2 Dust Silo	New	0.84 TPH	EAFVF2-BV

Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
LPHTR1	MSFUG[3]	Horizontal Ladle Preheater 1	New	15 mmBtu/hr	n/a
LPHTR2	MSFUG[3]	Horizontal Ladle Preheater 2	New	15 mmBtu/hr	n/a
LPHTR3	MSFUG[3]	Horizontal Ladle Preheater 3	New	15 mmBtu/hr	n/a
LPHTR4	MSFUG[3]	Horizontal Ladle Preheater 4	New	15 mmBtu/hr	n/a
LPHTR5	MSFUG[3]	Horizontal Ladle Preheater 5	New	15 mmBtu/hr	n/a
LPHTR6	MSFUG[3]	Vertical Ladle Preheater 6	New	15 mmBtu/hr	n/a
LPHTR7	MSFUG[3]	Vertical Ladle Preheater 7	New	15 mmBtu/hr	n/a
TD	MSFUG[3]	Tundish Dryer 1	New	6 mmBtu/hr	n/a
TPHTR1	MSFUG[3]	Tundish Preheater 1	New	9 mmBtu/hr	n/a
TPHTR2	MSFUG[3]	Tundish Preheater 2	New	9 mmBtu/hr	n/a
SENPHTR1	MSFUG[3]	Subentry Nozzle (SEN) Preheater 1	New	1 mmBtu/hr	n/a
SENPHTR2	MSFUG[3]	Subentry Nozzle (SEN) Preheater 2	New	1 mmBtu/hr	n/a
VTD1	VTDST1	Vacuum Tank 1	New	269 lbs-CO/hr	VTG-Flare 1
VTD2	VTDST2	Vacuum Tank 2	New	269 lbs-CO/hr	VTG-Flare 2
Hot Mill					
TF1	TFST-1	Hot Mill Tunnel Furnace 1	New	150 mmBtu/hr	None
RM	RM-BH	Rolling Mill	New	342 TPH	RM-BH
Cold Mill					
PKLSB	PKLSB	Pickling Line Scale Breaker	New	342 TPH	PKLSB-BH
PKL-1	PLST-1	Pickling Line 1	New	171 TPH	PKL1-SCR
CGL1	CGL1-ST1	CGL1 - Cleaning Section	New	171 TPH	CGL-SCR1
	CGL1-ST2	CGL1 - Passivation Section		171 TPH	CGL-SCR2
CGL2	CGL2-ST1	CGL2 - Cleaning Section	New	171 TPH	CGL-SCR3
	CGL2-ST2	CGL2 - Passivation Section		171 TPH	CGL-SCR4
GALVFN1	GALVFN1-ST	Galvanizing Furnace 1	New	64 mmBtu/hr	None
GALVFN2	GALVFN2-ST	Galvanizing Furnace 2	New	64 mmBtu/hr	None
BOXANN1	GALVFUG[4]	Box Annealing Furnace 1	New	5 mmBtu/hr	None
BOXANN2	GALVFUG[4]	Box Annealing Furnace 2	New	5 mmBtu/hr	None
BOXANN3	GALVFUG[4]	Box Annealing Furnace 3	New	5 mmBtu/hr	None

Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
BOXANN4	GALVFUG[4]	Box Annealing Furnace 4	New	5 mmBtu/hr	None
BOXANN5	GALVFUG[4]	Box Annealing Furnace 5	New	5 mmBtu/hr	None
BOXANN6	GALVFUG[4]	Box Annealing Furnace 6	New	5 mmBtu/hr	None
BOXANN7	GALVFUG[4]	Box Annealing Furnace 7	New	5 mmBtu/hr	None
BOXANN8	GALVFUG[4]	Box Annealing Furnace 8	New	5 mmBtu/hr	None
BOXANN9	GALVFUG[4]	Box Annealing Furnace 9	New	5 mmBtu/hr	None
BOXANN10	GALVFUG[4]	Box Annealing Furnace 10	New	5 mmBtu/hr	None
BOXANN11	GALVFUG[4]	Box Annealing Furnace 11	New	5 mmBtu/hr	None
BOXANN12	GALVFUG[4]	Box Annealing Furnace 12	New	5 mmBtu/hr	None
BOXANN13	GALVFUG[4]	Box Annealing Furnace 13	New	5 mmBtu/hr	None
BOXANN14	GALVFUG[4]	Box Annealing Furnace 14	New	5 mmBtu/hr	None
BOXANN15	GALVFUG[4]	Box Annealing Furnace 15	New	5 mmBtu/hr	None
BOXANN16	GALVFUG[4]	Box Annealing Furnace 16	New	5 mmBtu/hr	None
BOXANN17	GALVFUG[4]	Box Annealing Furnace 17	New	5 mmBtu/hr	None
BOXANN18	GALVFUG[4]	Box Annealing Furnace 18	New	5 mmBtu/hr	None
BOXANN19	GALVFUG[4]	Box Annealing Furnace 19	New	5 mmBtu/hr	None
BOXANN20	GALVFUG[4]	Box Annealing Furnace 20	New	5 mmBtu/hr	None
BOXANN21	GALVFUG[4]	Box Annealing Furnace 21	New	5 mmBtu/hr	None
BOXANN22	GALVFUG[4]	Box Annealing Furnace 22	New	5 mmBtu/hr	None
TCM	TCMST	Tandem Cold Mill	New	342 TPH	TCM-ME
STM	STM-BH	Standalone Temper Mill	New	342 TPH	STM-ME
SPM1	SPMST1	Skin Pass Mill 1	New	114 TPH	SPM1-BH
SPM2	SPMST2	Skin Pass Mill 2	New	114 TPH	SPM3-BH
Slag Processing					
SLGSKP1	Fugitives	Slag Storage Stockpile 1	New	32,541 ft^2	WS
SLGSKP2	Fugitives	Slag Storage Stockpile 2	New	32,541 ft^2	WS
SLGSKP3	Fugitives	Slag Storage Stockpile 3	New	32,541 ft^2	WS
SLGSKP4	Fugitives	Slag Storage Stockpile 4	New	32,541 ft^2	WS
SLAG-CUT	SLAG-CUT-NG	Slag Cutting Combustion	New	2.4 mmBtu/hr	None
	SLAG-CUT-BH	Slag Cutting		171 TPH	SLAG-CUT-BH

Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
SCRAP-BULK1	SCRAP-BULK1	Dig Slag Inside Pot Barn	New	73 TPH	PE, WS
SCRAP-BULK2	SCRAP-BULK2	Loader Transport & Dump Slag Into Trench	New	73 TPH	PE, WS
SCRAP-BULK3	SCRAP-BULK3	Loader Transport & Dump Slag Into F1 Feed Hopper/Grizzly	New	73 TPH	PE, WS
SCRAP-BULK4	SCRAP-BULK4	TP: F1 Feed Hopper/Grizzly to P1 Oversize Storage[5]	New	73 TPH	PE, WS
SCRAP-BULK5	SCRAP-BULK5	TP: F1 Feed Hopper/Grizzly to C7 Crusher Conveyer	New	1.5 TPH	PE, WS
SCRAP-BULK6	SCRAP-BULK6	TP: F1 Feed Hopper/Grizzly to C1A Main Conveyer	New	22 TPH	PE, WS
SCRAP-BULK7	SCRAP-BULK7	TP: C7 to CR1 Crusher	New	50 TPH	PE, WS
SCRAP-BULK8	SCRAP-BULK8	TP: CR1 Crusher to C8 Conveyer	New	22 TPH	PE, WS
SCRAP-BULK9	SCRAP-BULK9	TP: CR1 Crusher to P2 Off-spec Storage[5]	New	19 TPH	PE, WS
SCRAP-BULK10	SCRAP-BULK10	TP: C8 Conveyer to C9 Conveyer	New	3.3 TPH	PE, WS
SCRAP-BULK11	SCRAP-BULK11	TP: C9 Conveyer to C1A Conveyer	New	19 TPH	PE, WS
SCRAP-BULK12	SCRAP-BULK12	TP: C1A Conveyer to B1 Surge Bin	New	19 TPH	PE, WS
SCRAP-BULK13	SCRAP-BULK13	TP: B1 Surge Bin to C1 Conveyer	New	68 TPH	PE, WS
SCRAP-BULK14	SCRAP-BULK14	TP: C1 Conveyor through M1 Mag Splitter to S1 Slag Screen	New	68 TPH	PE, WS
SCRAP-BULK15	SCRAP-BULK15	TP: C1 Conveyor through M1 Mag Splitter to S2 Slag Screen	New	66 TPH	PE, WS
SCRAP-BULK16	SCRAP-BULK16	TP: S2 Slag Screen to C6 Conveyor	New	2.4 TPH	PE, WS
SCRAP-BULK17	SCRAP-BULK17	TP: S2 Slag Screen to P3 Off-spec Storage[5]	New	2 TPH	PE, WS
SCRAP-BULK18	SCRAP-BULK18	TP: C6 Conveyor to P4 Off-spec Storage[5]	New	0.4 TPH	PE, WS
SCRAP-BULK19	SCRAP-BULK19	TP: S1 Slag Screen to C2 Conveyer	New	2 TPH	PE, WS

Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
SCRAP-BULK20	SCRAP-BULK20	TP: C2 Conveyer to C5 Conveyer	New	26 TPH	PE, WS
SCRAP-BULK21	SCRAP-BULK21	TP: C5 Conveyer to SLGSKP1	New	26 TPH	PE, WS
SCRAP-BULK22	SCRAP-BULK22	TP: S1 Slag Screen to C4 Conveyer	New	26 TPH	PE, WS
SCRAP-BULK23	SCRAP-BULK23	TP: C4 Conveyer to SLGSKP3	New	20 TPH	PE, WS
SCRAP-BULK24	SCRAP-BULK24	TP: S1 Slag Screen to C3 Conveyer	New	20 TPH	PE, WS
SCRAP-BULK25	SCRAP-BULK25	TP: C3 Conveyer to SLGSKP2	New	13 TPH	PE, WS
SCRAP-BULK26	SCRAP-BULK26	TP: S1 Slag Screen to SLGSKP4	New	13 TPH	PE, WS
SCRAP-BULK27	SCRAP-BULK27	Loader transports & loads products into trucks to Product Stockpiles	New	6.6 TPH	PE, WS
SCRAP-BULK28	SCRAP-BULK28	Truck Dumps Products into Product Stockpiles	New	73 TPH	PE, WS
SCRAP-BULK29	SCRAP-BULK29	Loader Into trucks, Oversize to Drop Ball Crusher	New	73 TPH	PE, WS
SCRAP-BULK30	SCRAP-BULK30	Truck Dumps Oversize into Drop Ball Area	New	1.5 TPH	PE, WS
SCRAP-BULK31	SCRAP-BULK30	Truck Transports Ladle Lip/Meltshop Cleanup Materials & Dumps at Drop Ball Site	New	4.7 TPH	PE, WS
SCRAP-BULK32	SCRAP-BULK32	Truck Transports & Dumps Tundish at Lancing Station	New	2.6 TPH	PE, WS
SCRAP-BULK33	SCRAP-BULK33	Ball Drop Crusher	New	2.3 TPH	PE, WS
Auxiliary Operations/Equipment					
ASP	ASP-1	Water Bath Vaporizer	New	11 mmBtu/hr	None
Emergency Generators					
EMGEN1	EMGEN1	Emergency Generator 1	New	2,000 hp	TBD[6]
EMGEN2	EMGEN2	Emergency Generator 2	New	2,000 hp	TBD[6]
EMGEN3	EMGEN3	Emergency Generator 3	New	2,000 hp	TBD[6]
EMGEN4	EMGEN4	Emergency Generator 4	New	2,000 hp	TBD[6]

Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
EMGEN5	EMGEN5	Emergency Generator 5	New	2,000 hp	TBD[6]
EMGEN6	EMGEN6	Emergency Generator 6	New	2,000 hp	TBD[6]
Cooling Towers					
CT1	CT1	Melt Shop ICW Cooling Tower	New	52,000 gpm	DE
CT2	CT2	Melt Shop DCW Cooling Tower	New	5,900 gpm	DE
CT3	CT3	Rolling Mill ICW Cooling Tower	New	8,500 gpm	DE
CT4	CT4	Rolling Mill DCW Cooling Tower	New	22,750 gpm	DE
CT5	CT5	Rolling Mill Quench/ACC Cooling Tower	New	90,000 gpm	DE
CT6	CT6	Light Plate DCW System	New	8,000 gpm	DE
CT7	CT7	Heavy Plate DCW System	New	3,000 gpm	DE
CT8	CT8	Air Separation Plant Cooling Tower	New	14,000 gpm	DE
Fixed Roof Storage Tanks					
T1	T1	Diesel Tank	New	5,000 gallon	None
T2	T2	Diesel Tank	New	1,000 gallon	None
T3	T3	Diesel Tank	New	1,000 gallon	None
T4	T4	Diesel Tank	New	1,000 gallon	None
T5	T5	Diesel Tank	New	2,000 gallon	None
T6	T6	Diesel Tank	New	2,000 gallon	None
T7	T7	Gasoline Tank	New	1,000 gallon	None
T8	T8	Caster Hydraulic Oil Tank	New	5,000 gallon	None
T9	T9	Hot Mill Hydraulic Oil Tank	New	5,000 gallon	None
T10	T10	HCL Tank 1	New	26,400 gallon	None
T11	T11	HCL Tank 2	New	26,400 gallon	None
T12	T12	HCL Tank 3	New	26,400 gallon	None
T13	T13	HCL Tank 4	New	26,400 gallon	None
T14	T14	HCL Tank 5	New	26,400 gallon	None
T15	T15	HCL Tank 6	New	26,400 gallon	None
T16	T16	SPL Tank 1	New	26,400 gallon	None

Table 1.0: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
T17	T17	SPL Tank 2	New	26,400 gallon	None
T18	T18	SPL Tank 3	New	26,400 gallon	None
T19	T19	SPL Tank 4	New	26,400 gallon	None
T20	T20	SPL Tank 5	New	26,400 gallon	None
T21	T21	SPL Tank 6	New	26,400 gallon	None
T22	T22	SPL Tank 7	New	26,400 gallon	None
T23	T23	SPL Tank 8	New	26,400 gallon	None
T24	T24	Used Oil Tank	New	5,000 gallon	None
Other Tanks					
T25	T25	Cold Degreaser Tank[7]	New	80 gallon	None
T26	T26	Cold Degreaser Tank[7]	New	80 gallon	None
T27	T27	Cold Degreaser Tank[7]	New	80 gallon	None
T28	T28	Cold Degreaser Tank[7]	New	80 gallon	None
T29	T29	Cold Degreaser Tank[7]	New	80 gallon	None

(1) This column does note include pollution prevention technologies/procedures such as Low-NO_x Burners or Good Combustion Practices. BH - Baghouse; BV - Bin Vent; DE - Drift Eliminator; ME - Mist Eliminator; PE - Partial Enclosure; SCR - Scrubber; TBD - To Be Determined; WS - Water Sprays/Wet Suppression

(2) This heat input reflects the size of the natural gas-fired oxyfuel burners.

(3) Natural gas combustion exhaust emissions that vent inside the Melt Shop building and are assumed all emitted from building openings.

(4) Natural gas combustion exhaust emissions that vent inside the Cold Mill building and are assumed all emitted from building openings.

(5) P1, P2, P3, and P4 Storage are small temporary indoor areas of screen/crusher reject.

(6) These engines are required to be in compliance with 40 CFR 60, Subpart JJJJ. Oxidation catalysts may be necessary on some engines to meet the applicable standards.

(7) These tanks are open during use (see Section 4.1.7(f)).

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information	**PM**	Particulate Matter
CEM	Continuous Emission Monitor	**$PM_{2.5}$**	Particulate Matter less than 2.5µm in diameter
CES	Certified Emission Statement	**PM_{10}**	Particulate Matter less than 10µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations	**Ppb**	Pounds per Batch
CO	Carbon Monoxide	**pph**	Pounds per Hour
C.S.R. *or* CSR	Codes of State Rules	**ppm**	Parts per Million
DAQ	Division of Air Quality	**Ppmv or ppmv**	Parts per million by volume
DEP	Department of Environmental Protection	**PSD**	Prevention of Significant Deterioration
dscm	Dry Standard Cubic Meter	**psi**	Pounds per Square Inch
FOIA	Freedom of Information Act	**SIC**	Standard Industrial Classification
HAP	Hazardous Air Pollutant	**SIP**	State Implementation Plan
HON	Hazardous Organic NESHAP	**SO_2**	Sulfur Dioxide
HP	Horsepower	**TAP**	Toxic Air Pollutant
lbs/hr	Pounds per Hour	**TPY**	Tons per Year
LDAR	Leak Detection and Repair	**TRS**	Total Reduced Sulfur
M	Thousand	**TSP**	Total Suspended Particulate
MACT	Maximum Achievable Control Technology	**USEPA**	United States Environmental Protection Agency
MDHI	Maximum Design Heat Input	**UTM**	Universal Transverse Mercator
MM	Million	**VEE**	Visual Emissions Evaluation
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**VOC**	Volatile Organic Compounds
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour	**VOL**	Volatile Organic Liquids
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation.*

2.4. Term and Renewal

2.4.1. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R14-0039 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.10 and 13-10.3]

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a 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 that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve (12) month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve (12) calendar months. Compliance with all hourly emission limits shall be based, unless otherwise specified, on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language;
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State-Enforceable only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

If to the US EPA:

Section Chief
U.S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air Section (3ED21)
Four Penn Center
1600 John F Kennedy Blvd
Philadelphia, PA 19103-2852

[1] For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. **Operating Fee.**

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.4.2. In accordance with 45CSR30 – Operating Permit Program, enclosed with this permit is a Certified Emissions Statement (CES) Invoice, from the date of initial startup through the following June 30. Said invoice and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with the Section 4.5 of 45CSR22. A copy of this schedule may be found attached to the Certified Emissions Statement (CES) Invoice.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Only those emission units/sources as identified in Table 1.0, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility by this permit. In accordance with the information filed in Permit Application R14-0039, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0.

4.1.2. The aggregate production of sheet steel in the EAFs (EAF-1 and EAF-2) shall not, on a rolling 12-month basis, exceed 3,000,000 tons per year as measured as the total tons of molten metal sent to the casters (CAST1 and CAST2).

4.1.3. **Material Handling & Storage Operations**

The handling of: (1) slag, (2) raw materials used in the production of steel: scrap steel, direct reduced iron (DRI) and other scrap substitutes, carbons, alloys, and lime, and (3) EAF Baghouse Dust shall be in accordance with the following requirements:

a. The permittee shall not exceed the specified maximum annual throughputs of the following materials:

Table 4.1.3(a): Maximum Annual Throughputs

Material	Limit	Units
Scrap Steel	1,925,000	TPY(1)
DRI(2)	557,500	TPY(1)
Alloys	62,000	TPY(1)
Carbon	35,000	TPY(1)
Lime	70,000	TPY(1)
Slag	262,500	TPY(3)

(1) As measured prior to charging in the EAF/LMF.
(2) DRI may include the following scrap substitutes: pig iron and hot briquetted Iron (HBI).
(3) As measured processed through the F1 Slag Feed Hopper.

b. The permittee shall not exceed the specified maximum design capacities of the following equipment:

Table 4.1.3(b): Maximum Design Capacity

Emission Unit ID	Description	Limit	Units
CR1	Slag Crusher	50	TPH
S1	Slag Screen 1	68	TPH
S2	Slag Screen 2	66	TPH

c. The permittee shall not exceed the maximum emission limits for the material handling stack/vent emission points as given under Appendix A: Table A-1 and the material handling non-stack/vent emission points (including open stockpiles) as given under Appendix A: Table A-2;

d. The permittee shall meet the following additional control device/mitigation requirements for the material handling operations:

(1) The permittee shall perform all slag handling operations (including conveying, crushing, screening, and storing) only on slag that is wetted sufficiently (BACT) to mitigate the emissions of particulate matter; and

(2) The permittee shall locate and enclose (where applicable) each material handling operation as described in the Bulk Materials Transfer/Process Inputs and Assumptions Table in the permit application so as to achieve the minimum control efficiency listed therein.

e. A visible and/or audible warning device shall be installed on each of the EAF Baghouse Storage Silos to warn operators when the silos are full so that silos are not overloaded. The silos shall not be overloaded at any time. All particulate material retrieved from any of the EAF Baghouses shall be handled in a manner that will prevent excess material from becoming airborne into the atmosphere;

f. **Outdoor Open Storage Piles**
All outdoor open feedstock material storage shall be in accordance with the following:

(1) The permittee is authorized to operate three (3) open scrap steel stockpiles (SCRPSKP1 through SCRPSKP3) that shall each not exceed a base of 81,809 ft^2 and four (4) open slag stockpiles (SLGSKP1 through SLGSKP4) that shall each not exceed a base of 32,541 ft^2. The permittee shall manage on-pile activity so as to minimize the release of emissions from all open stockpiles;

(2) The permittee shall utilize water sprays as necessary on all open storage piles to keep the to mitigate any significant release of fugitive dust emissions from the piles both during periods of activity on the pile and from wind erosion;

(3) The permittee shall properly install, operate and maintain winterization systems for all water sprays in a manner that the water sprays will remain effective and functional, to the maximum extent practicable, during winter months and cold weather. At all times, including periods of cold weather, the permittee shall comply with the water spray requirements of this section; and

(4) All other feedstock material (DRI and other scrap substitutes, carbon, alloys, and lime) shall be stored in silos or enclosed bins.

g. **Haulroads and Mobile Work Areas**
Fugitive particulate emissions resulting from use of haulroads and mobile work areas shall be minimized by the following:

(1) The permittee shall perform all necessary tasks to adequately maintain paved haulroads and paved mobile work areas (including a reasonable shoulder area) within the plant boundary;

(2) All unpaved roads and mobile work areas shall be graded with gravel, slag, or a mixture of the two so as to provide a suitable surface for the use of trucks and other heavy equipment. Unpaved roads and mobile work areas shall be provided with additional slag or gravel as needed to maintain the road surface;

(3) The permittee shall, in a timely fashion, collect material spilled on paved haulroads that could become airborne if it dried or were subject to vehicle traffic and shall maintain access to a vacuum sweeper truck in good operating condition, and shall utilize same as needed to remove excess dirt and dust from all paved haulroads and mobile work areas. If needed, the haulroads and mobile work areas shall be flushed with water prior to vacuum sweeping to remove larger pieces of debris;

(4) The permittee shall maintain a water truck on site and in good operating condition, and shall utilize same to apply a mixture of water and an environmentally acceptable dust control additive, hereinafter referred to as solution, as often as is necessary in order to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haulroads and other work areas where mobile equipment is used. The spraybar shall be equipped with commercially available spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated.

The pump delivering the water/solution shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of solution, and at a sufficient pressure, so as to assure that the treatment process will minimize the atmospheric entrainment of fugitive particulate emissions generated from the haulroads and work areas where mobile equipment is used.

The permittee shall properly install, operate and maintain winterization systems for all water trucks in a manner that the water truck will remain effective and functional, to the maximum extent practicable, during winter months and cold weather. At all times, including periods of cold weather, the permittee shall comply with the water truck requirements of this permit; and

(5) A maximum speed limit of 15 miles per hour shall be maintained on all unpaved haulroads. Clear and visible signs shall be posted displaying this speed limit wherever necessary to ensure compliance with this requirement.

h. **45CSR7**

The material handling sources identified under 4.1.3(c) shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

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

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

(3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in

excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

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

4.1.4. Melt Shop

The emission units/sources in the Melt Shop shall meet the following requirements:

a. **EAFs/LMFs**

The EAFs (identified as EAF-1 and EAF-2) and LMFs (identified as LMF1 and LMF2) shall each not exceed the aggregate emission limits in the following table, as emitted from the associated baghouse (EAF1-BH and EAF2-BH), and shall utilize the specified BACT Technology, as given in the following table (the emission limits are in effect during all periods of operation):

Table 4.1.4(a): EAF/LMF Emission Limits

Pollutant	BACT Limit	BACT Technology(1)		PPH	TPY
CO	2.02 lb/ton-steel(2)	GCP(3)		328.15	1,439.00
NO_x	0.35 lb/ton-steel(4)	EAFs	Oxyfuel Burners	56.86	249.38
		LMFs	GCP		
$PM_{2.5}$/PM_{10}(5)	0.0052 gr/dscf	Baghouse		49.19	215.45
PM(6)	0.0018 gr/dscf	Baghouse		17.03	74.58
SO_2	0.24 lb/ton-steel(7)	Scrap Management/ Lime Fluxing(8)		38.99	171.00
VOCs	0.098 lb/ton-steel(9)	EAFs	GCP	15.92	69.83
			Scrap Management Plan(10)		
		LMFs			
Lead	0.00045 lb/ton-steel	Baghouse		0.07	0.32
Fluoride	0.00350 lb/ton-steel	Baghouse		0.57	2.49
Total HAPs	n/a	n/a		0.25	1.06
CO_2e	TPY Limit	OxyFuel Burners, See 4.1.4(c)(5)		47,813	179,357

(1) LNB = Low NO_x Burner; GCP = Good Combustion Practices
(2) Aggregated limit based on an EAF emission rate of 2.00 lb/ton-steel and LMF emission rate of 0.02 lb/ton-steel. Compliance based on a 30-day rolling average.
(3) For the purposes of this permit, "Good Combustion Practices (GCP)" are defined to include, but are not limited to the following: (1) maintaining a proper oxidizing atmosphere to control emissions through proper combustion tuning, temperature, and air/fuel mixing and (2) activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge,

performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.

(4) Aggregated limit based on an EAF emission rate of 0.30 lb/ton-steel and LMF emission rate of 0.05 lb/ton-steel. Compliance based on a 30-day rolling average.
(5) Includes condensables.
(6) Filterable only.
(7) Aggregated limit based on an EAF emission rate of 0.20 lb/ton-steel and LMF emission rate of 0.04 lb/ton-steel. Compliance based on a 30-day rolling average.
(8) The permittee shall limit the sulfur content of the EAF feedstock materials utilizing scrap management and shall add lime fluxing to the charge so as to meet the SO_2 emission limit given in this Table except and only at times where specific process requirements preclude the use of lime fluxing. At all times the SO_2 emission limits given in this table remain in effect.
(9) Aggregated limit based on an EAF emission rate of 0.093 lb/ton-steel and LMF emission rate of 0.005 lb/ton-steel. Compliance based on a 30-day rolling average.
(10) For the purposes of this permit, "Scrap Management Plan" is defined as being in compliance with the Scrap Management Requirements under 40 CFR 63, Subpart YYYYY and the use of commercially available low residue, pre-processed, and inspected scrap.

b. **Melt Shop Fugitive Emissions**

The aggregate uncaptured fugitive emissions from the both EAFs/LMFs (identified as EAF-1 and EAF-2) and both the Casters (identified as CAST-1 and CAST-2) shall not exceed the limits given in the following table (these limits do not include the natural gas combustion exhaust emissions from various sources listed under Table 4.1.5(a)):

Table 4.1.4(b): EAFs/LMFs/Casters Fugitive Emission Limits[(1)(2)(3)(4)]

Pollutant	Source	PPH	TPY
CO	EAF-1/EAF-2	34.54	151.50
NO_x	EAF-1/EAF-2	5.99	26.25
$PM_{2.5}/PM_{10}$[(5)]	EAF-1/EAF-2	0.94	4.12
	CAST-1/CAST-2	0.21	0.90
PM[(6)]	EAF-1/EAF-2	1.62	7.10
	CAST-1/CAST-2	0.21	0.90
SO_2	EAF-1/EAF-2	4.10	18.00
VOCs	EAF-1/EAF-2	1.68	7.35
Lead	EAF-1/EAF-2	0.0077	0.0338
Fluoride	EAF-1/EAF-2	0.060	0.263
Total HAPs	EAF-1/EAF-2	0.040	0.066
CO_2e	EAF-1/EAF-2	5,033	18,880

(1) With the exception of CO_2e, the PPH limits in this table represent the BACT emission limits and the particulate matter capture methods and control efficiencies given under 4.1.3(c) below represent the associated control method/technology. The BACT limit for CO_2e is the TPY limit.
(2) EAF/LMF fugitive non-particulate matter emissions based on 5% of total uncontrolled emissions (not captured by the DEC). Particulate Matter emissions based on 0.025% of uncontrolled emissions when the furnace hood is closed (96% of the time) - using capture efficiency of DEC (95%), Canopy Hood (95%), and Melt Shop building (90%) - and based on 0.5% of uncontrolled emissions when the furnace hood is open (4% of the time) - using capture efficiency of Canopy Hood (95%) and Melt Shop building (90%).
(3) Casters fugitives are only particulate matter emissions and based on 0.50% of total uncontrolled

emissions - using capture efficiency of Canopy Hood (95%) and Melt Shop building (90%).

(4) All other natural gas combustion sources that exhaust in the Melt Shop building are considered fugitive and emitted from building openings. These limits are given under Table 4.1.5(a).

(5) Includes condensables.

(6) Filterable only.

c. **EAF/LMF/Casting Operating Requirements**

The EAFs/LMFs shall be operated according to the following requirements:

(1) Each EAF will not exceed an aggregate oxyfuel burner heat input of 22.18 mmBtu/hr and the burners shall be fired only by pipeline quality natural gas (PNG);

(2) During melting operations, when the roof is closed, the permittee shall utilize a direct-shell evacuation control (DEC) system designed and operated to achieve a minimum capture efficiency of 95% of all potential particulate matter emissions from the EAFs and LMFs and evacuate the exhaust to each associated EAF baghouse. Pursuant to 40 CFR 60, Subpart AAa, a DEC system means a system that maintains a negative pressure within the EAF above the slag or metal and ducts emissions to the EAF baghouse;

(3) The permittee shall utilize a roof canopy hood designed and operated to achieve a minimum capture efficiency of 95% of all potential fugitive particulate matter emissions from the EAFs/LMFs and Casters (CAST-1 and CAST-2);

(4) The permittee shall operate control equipment and/or implement work practice standards as reasonable precautions to prevent particulate matter from becoming airborne and exiting any opening from the Melt Shop building into the open air so as to achieve a minimum capture efficiency of 90% of all potential fugitive particulate matter emissions from the EAFs/LMFs and Casters (CAST-1 and CAST-2). Reasonable precautions include, but are not limited to the following:

(i) Downdraft and/or plastic strip air curtains at Melt Shop openings with the potential for fugitive particulate emissions;

(ii) Keeping other doors closed except for pass-through traffic;

(iii) The scrap charge bay door shall be maintained at all times with a plastic strip air curtain covering the top 15 feet of the opening; and

(iv) After removal from the EAFs, all molten slag shall be deposited into slag carrying pots and transported to the designated slag processing area.

(5) To comply with GHG BACT on the EAFs, the permittee shall meet the following design and operational requirements:

(i) Install and maintain seals and modern insulation media to minimize heat losses from EAF doors, roof, and any openings around the burners or other equipment traversing through the furnace shell;

(ii) Install, operate, and maintain oxyfuel burners in accordance with manufacturer's specifications to maximize heat transfer, reduce heat losses, and reduce electrode consumption resulting in high thermal efficiency and reduced electrical energy consumption;

(iii) Employ foamy slag practices to reduce radiation heat losses and increases the electric power efficiency of the EAFs;

(iv) Optimize process control operations to reduce electricity consumption through monitoring integration of real-time monitoring of process variables along with realtime control systems for carbon injection and lance oxygen practices; and

(v) Implement a preventative maintenance program that is consistent with the manufacturer's instructions for routine and long-term maintenance of equipment important to the operation, including EAF doors, burners, etc.

d. **Vacuum Tank Degassers Requirements**

The Vacuum Tank Degassers (VTGs), identified as VTD1 and VTD2, shall be operated according to the following requirements:

(1) Once the ladle is enclosed in the VTGs and a vacuum is drawn, all gas from the units shall be pulled through a particulate filter and combusted in the associated VTG Flare. The flare shall be designed and operated according to the requirements given under 4.1.10(e);

(2) The VTGs shall not be operated simultaneously;

(3) The emissions from each VTG, as controlled by the VTG Flare, shall not exceed the limits given in the following table (Emission Points VTGST-1 and VTGST-2):

Table 4.1.4(d)(3): VTG/Flaring Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH	TPY
CO	PPH Limit	Flaring	5.38	14.93
NO_x	PPH Limit	§60.18 Flare Design	0.84	3.69
$PM_{2.5}$/PM_{10}(1)	0.0083 gr/scf (pre flare)	Particulate Filter(2) §60.18 Flare Design	0.08	0.33
PM(3)	0.0083 gr/scf (pre flare)	Particulate Filter §60.18 Flare Design	0.08	0.33
SO_2(4)	PPH Limit	§60.18 Flare Design	0.01	0.03
VOCs	PPH Limit	§60.18 Flare Design	1.73	7.60
Total HAPs	n/a	n/a	0.02	0.10
CO_2e	TPY Limit	§60.18 Flare Design	1,863	7,504

(1) Includes condensables.
(2) The Particulate Filter is located prior to the flare and captures emissions generated by the VTG. It does not control the trace amount of particulate matter generated by the flare's combustion exhaust.
(3) Filterable only.
(4) SO_2 emissions are based on the natural gas combustion emission factor as a conservative estimate of possible emissions from the flare, No substantive amount of sulfur compounds are expected in the waste gas.

(4) The particulate matter filter controlling the offgases from each VTG (prior to combustion in the flare) shall not exceed an exit loading rate of 0.0083 gr/dscf (defined as BACT).

e. **45CSR7**
The EAFs, LMFs, Casters, and VTGs shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

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

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

(3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

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

f. **45CSR10**
The Emission Points BHST-1 and BHST-2 are subject to the applicable limitations and standards under 45CSR10, including the requirements given below:

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

(2) Compliance with the allowable sulfur dioxide concentration limitations from manufacturing process source operation(s) set forth in this rule shall be based on a block three (3) hour averaging time.
[45CSR§10-4.2]

g. **40 CFR 60, Subpart AAa**
The EAFs shall comply with all applicable requirements of 40 CFR 60, Subpart AAa including, but not limited to, the following standards:

(1) **§ 60.272a Standard for particulate matter.**

(i) 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:
[40 CFR§60.272a(a)]

(A) Exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf);
[40 CFR§60.272a(a)(1)]

(B) Exit from a control device and exhibit 3 percent opacity or greater; and
[40 CFR§60.272a(a)(2)]

(C) 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.
[40 CFR§60.272a(a)(3)]

(ii) 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.
[40 CFR§60.272a(b)]

h. **40 CFR 63, Subpart YYYYY**
The EAFs shall comply with all applicable requirements of 40 CFR 63, Subpart YYYYY including, but not limited to, the following standards:

(1) **§63.10685 What are the requirements for the control of contaminants from scrap?**

(i) **Chlorinated plastics, lead, and free organic liquids.** For metallic scrap utilized in the EAF at your facility, you must comply with the requirements in either paragraph (a)(1) or (2) of this section. You may have certain scrap at your facility subject to paragraph (a)(1) of this section and other scrap subject to paragraph (a)(2) of this section provided the scrap remains segregated until charge make-up.
[40 CFR§63.10685(a)]

(A) **Pollution prevention plan**. For the production of steel other than leaded steel, you must prepare and implement a pollution prevention plan for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that is charged to the furnace. For the production of leaded steel, you must prepare and implement a pollution prevention plan for scrap selection and inspection to minimize the amount of chlorinated plastics and free organic liquids in the scrap that is charged to the furnace. You must submit the scrap pollution prevention plan to the permitting authority for approval. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority. You must keep a copy of the plan onsite, and you must provide training on the plan's requirements to all plant personnel with materials acquisition or inspection duties. Each plan must include the information in paragraphs (a)(1)(i) through (iii) of this section:
[40 CFR§63.10685(a)(1)]

(1) Specifications that scrap materials must be depleted (to the extent practicable) of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace.
[40 CFR§63.10685(a)(1)(i)]

(2) A requirement in your scrap specifications for removal (to the extent practicable) of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap, except for scrap used to produce leaded steel.
[40 CFR§63.10685(a)(1)(ii)]

(3) Procedures for determining if the requirements and specifications in paragraph (a)(1) of this section are met (such as visual inspection or periodic audits of scrap providers) and procedures for taking corrective actions with vendors whose shipments are not within specifications.
[40 CFR§63.10685(a)(1)(iii)]

(4) The requirements of paragraph (a)(1) of this section do not apply to the routine recycling of baghouse bags or other internal process or maintenance materials in the furnace. These exempted materials must be identified in the pollution prevention plan.
[40 CFR§63.10685(a)(1)(iv)]

(B) **Restricted metallic scrap.** For the production of steel other than leaded steel, you must not charge to a furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, lead-containing components, chlorinated plastics, or free organic liquids. For the production of leaded steel, you must not charge to the furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, chlorinated plastics, or free organic liquids. This restriction does not apply to any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed or cleaned to the extent practicable such that the materials do not include lead components, chlorinated plastics, or free organic liquids. This restriction does not apply to motor vehicle scrap that is charged to recover the chromium or nickel content if you meet the requirements in paragraph (b)(3) of this section.
[40 CFR§63.10685(a)(2)]

(ii) **Mercury requirements.** For scrap containing motor vehicle scrap, you must procure the scrap pursuant to one of the compliance options in paragraphs (b)(1), (2), or (3) of this section for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, you must procure the scrap pursuant to the requirements in paragraph (b)(4) of this section for each scrap provider, contract, or shipment. You may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision.
[40 CFR§63.10685(b)]

(A) **Site-specific plan for mercury switches**. You must comply with the requirements in paragraphs (b)(1)(i) through (v) of this section.
[40 CFR§63.10685(b)(1)]

(1) You must include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.
[40 CFR§63.10685(b)(1)(i)]

(2) You must prepare and operate according to a plan demonstrating how your facility will implement the scrap specification in paragraph (b)(1)(i) of this section for removal of mercury switches. You must submit the plan to the permitting authority for approval. You must operate according to this plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority. The permitting authority may change the approval status of the plan upon 90-days written notice based upon the semiannual compliance report or other information. The plan must include:
[40 CFR§63.10685(b)(1)(ii)]

(A) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from that scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the permitting authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;
[40 CFR§63.10685(b)(1)(ii)(A)]

(B) Provisions for obtaining assurance from scrap providers that motor vehicle scrap provided to the facility meet the scrap specification;
[40 CFR§63.10685(b)(1)(ii)(B)]

(C) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and
[40 CFR§63.10685(b)(1)(ii)(C)]

(D) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in paragraph (b)(1)(ii)(C) of this section).
[40 CFR§63.10685(b)(1)(ii)(D)]

(3) You must require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to your facility during the previous year and the basis for the estimate. The permitting authority may request documentation or additional information at any time.
[40 CFR§63.10685(a)(1)(iii)]

(4) You must establish a goal for each scrap provider to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under paragraph (b)(1) of this section may require only the removal of convenience light switch mechanisms, the permitting authority will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.
[40 CFR§63.10685(a)(1)(iv)]

(5) For each scrap provider, you must submit semiannual progress reports to the permitting authority that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in paragraph (b)(1)(ii)(A) of this section. This information can be submitted in aggregated form and does not have to be submitted for each scrap provider, contract, or shipment. The permitting authority may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.
[40 CFR§63.10685(a)(1)(v)]

(B) **Option for approved mercury programs.** You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. The National Vehicle Mercury Switch Recovery Program and the Vehicle Switch Recovery Program mandated by Maine State law are EPA-approved programs under paragraph (b)(2) of this section unless and until the Administrator disapproves the program (in part or in whole) under paragraph (b)(2)(iii) of this section.
[40 CFR§63.10685(b)(2)]

(1) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;
[40 CFR§63.10685(b)(2)(i)]

(2) The program has a goal to remove at least 80 percent of mercury switches from the motor vehicle scrap the scrap provider processes. Although a program approved under paragraph (b)(2) of this section may require only the removal

of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and
[40 CFR§63.10685(b)(2)(ii)]

(3) The program sponsor agrees to submit progress reports to the Administrator no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.
[40 CFR§63.10685(b)(2)(iii)]

(4) You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.
[40 CFR§63.10685(b)(1)(iv)]

(A) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.
[40 CFR§63.10685(b)(2)(iv)(A)]

(B) You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the permitting authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.
[40 CFR§63.10685(b)(2)(iv)(B)]

(C) You must conduct periodic inspections or provide other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.
[40 CFR§63.10685(b)(2)(iv)(C)]

(2) **§63.10686 What are the requirements for electric arc furnaces and argon-oxygen decarburization vessels?**

(i) You must install, operate, and maintain a capture system that collects the emissions from each EAF (including charging, melting, and tapping operations) and argon-oxygen decarburization (AOD) vessel and conveys the collected emissions to a control device for the removal of particulate matter (PM). **[40 CFR§63.10686(a)]**

(ii) Except as provided in paragraph (c) of this section, you must not discharge or cause the discharge into the atmosphere from an EAF or AOD vessel any gases which:
[40 CFR§63.10686(b)]

(A) Exit from a control device and contain in excess of 0.0052 grains of PM per dry standard cubic foot (gr/dscf); and
[40 CFR§63.10686(b)(1)]

(B) Exit from a melt shop and, due solely to the operations of any affected EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater.
[40 CFR§63.10686(b)(2)]

4.1.5. Natural Gas Combustion Units

The natural gas-fired units identified in Appendix A: Table A-3 shall operate according to the following requirements:

a. Each unit shall be fired by PNG, shall not exceed the MDHI as given under Table 1.0 of this permit, shall not exceed the maximum emission limits for the specified process heaters given under Appendix A: Table A-3, and shall comply with the BACT requirements given in the following table;

Table 4.1.5(a): Natural Gas Combustion BACT

Pollutant	Emission Units	BACT Limit	BACT Technology(1)
CO	All Units in Table A-3	0.082 lb/mmBtu	Good Combustion Practices
NO_x	LD, TD LPHTR1 - 7 TPHTR1 - 2 SENPHTR1 - 2 SLAG-CUT ASP	0.098 lb/mmBtu	LNB, Good Combustion Practices
	BOXANN1 - 22 GALVFN1/2	0.05 lb/mmBtu	
	TF1	0.07 lb/mmBtu	
$PM_{2.5}$/$PM_{10(2)}$	All Units in Table A-3	0.00745 lb/mmBtu	Use of PNG, Good Combustion Practices
PM(3)	All Units in Table A-3	0.00186 lb/mmBtu	
SO_2	All Units in Table A-3	0.00059 lb/mmBtu	Use of PNG
VOCs	All Units in Table A-3	0.0054 lb/mmBtu	Good Combustion Practices
CO_2e	All Units in Table A-3	TPY Limits in Table A-3	Use of PNG, Good Combustion Practices

(1) LNB = Low-NO_x Burning Technology. For the purposes of this permit, "Good Combustion Practices" are defined to include, but are not limited to the following: (1) maintaining a proper oxidizing atmosphere to control emissions through proper combustion tuning, temperature, and air/fuel

mixing and (2) activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.

(2) Includes Condensables.

(3) Filterable Only.

b. As the annual emission limits of all natural gas-fired combustion units listed under Table A-3 are based on operating at MDHI for 8,760 hours of operation, there are no annual limit on hours of operation or natural gas combusted on an annual basis for these units.

c. **45CSR2**

The Water Bath Vaporizer (ASP) is subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under (1) through (3).

(1) The permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from the fuel burning units which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1]

(2) The permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the open air from the fuel burning units, measured in terms of pounds per hour in excess of the amount determined as follows:

(i) The product of 0.09 and the total design heat input for the fuel burning units in million British Thermal Units (B.T.U.'s) per hour, provided however that no more than twelve hundred (1200) pounds per hour of particulate matter shall be discharged into the open air.
[45CSR§2-4.1a]

(3) The visible emission standards set forth in section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary. **[45CSR§2-9.1]**

d. **45CSR10**

The Water Bath Vaporizer (ASP) is subject to the applicable limitations and standards under 45CSR10, including the requirement as given below:

(1) The permittee shall not cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from the fuel burning units measured in terms of pounds per hour, in excess of the product of 3.2 and the total design heat of the boilers in million BTU's per hour.
[45CSR§10-3.1]

(2) No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.
[45CSR§10-5.1]

e. **40 CFR 60, Subpart Dc**
The Water Bath Vaporizer (ASP) is subject to the applicable record-keeping and reporting requirements given under 40 CFR §60.48c.

4.1.6. Hot Mill and Cold Mill

The Hot Mill and the Cold Mill shall operate according to the following requirements:

a. The permittee shall not exceed the maximum particulate matter emission limits for the Hot Mill and Cold Mill stack/vent emission points as given under Appendix A: Table A -4;

b. **Pickling and Galvanizing Line**
The Pickling Line (PKL-1) and Galvanizing Line shall be operated according to the following requirements:

(1) The pickling line tanks shall be covered and vented to the appropriate Pickling Line Scrubber (PKL1-SCR);

(2) The outlet concentration of HCl from the Pickling Line Scrubber Stack (PLST-1) shall not exceed a BACT concentration of 6 parts per million by volume (ppm_v);

(3) Mass emissions of HCL from Pickling Line 1 Scrubber Stack (PLST-1) shall not exceed 0.25 lbs/hr and 1.09 tons/yr (as based on a maximum flow rate of 7,185 dscfm);

(4) Spillage of acid, caustic, or other process materials shall be cleaned up as soon as practical and contained to minimize fugitive emissions;

(5) During non-operational periods, either a fume suppressant shall be used in the pickling bath, or the pickling bath shall be covered to reduce evaporative losses;

(6) Hydrogen gas cleaning shall be used to prepare the steel for galvanizing to prevent fumes from the zinc pot. The use of fluxing agents in the Galvanizing Line is not authorized; and

(7) **45CSR7 - Acid Mist Source**
The emissions of HCl from the Pickling Lines shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

(i) Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this rule.
[45CSR§7-4.2]

c. **45CSR7 - Particulate Matter Sources**
The Hot Mill and Cold Mill particulate matter sources, excluding those that meet the exemption requirements given under 45CSR§7-10.5 and those that particulate matter is generated solely from the combustion of natural gas, shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

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

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. **[45CSR§7-3.2]**

(3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule. **[45CSR§7-4.1]**

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

4.1.7. Storage Tanks

Use of the fixed roof and open storage tanks shall be in accordance with the following:

a. Tank capacity shall be limited as specified under Table 1.0 of this permit;

b. The aggregate emissions of VOCs from all fixed roof storage tanks (T1 - T9, T24) shall not exceed a BACT Limit of 0.46 tons/year. The aggregate emissions of VOCs from all open Cold Degreaser Tanks (T25 - T29) shall not exceed a BACT Limit of 1.46 tons/year;

c. The aggregate emissions of HCl from all HCL Storage Tanks (T10 - T15) and the Spent Pickle Liquor Tanks (T16 - T23) shall not exceed a limit of 0.07 tons/year;

d. Material stored shall be as specified and the aggregate annual storage tank throughputs shall not exceed those given in the following table:

Table 4.1.7(d): Fixed Roof Storage Tanks Annual Throughput Limits

Tank ID	Material Stored	Gallons[(1)]
T1 - T6	Diesel	2,190,000
T7	Gasoline	120,000[(2)]
T8 -T9	Hydraulic Oil	730,000
T10 - T15	HCl	7,200,000
T16 - T23	Spent Pickle Liquor	7,200,000
T24	Used Oil	365,000

(1) This number represents the aggregate limit for all specified storage tanks.
(2) The permittee has chosen to comply with the 40 CFR 63, Subpart CCCCCC requirements for facilities with less than monthly throughput of less than 10,000 gallons of gasoline.

e. For all fixed roof storage tanks with the potential to emit VOCs (does not include T10 through T23 or T25 - T29), the permittee shall, for purposes **of** BACT, meet the following requirements:

(1) Utilize good operating practices in the operation of the storage tanks. Good operating practices shall mean maintaining and operating the storage tanks according to manufacturers recommendations and regularly inspecting the tanks for areas of disrepair or failure that would allow the escape of pollutant-containing vapors.

(2) Maintain a white or aluminum color on all storage tank surfaces that are exposed to the sun to mitigate heat absorption of the tanks; and

(3) Utilize submerged fill on all tanks.

f. Operation of the Cold Degreaser Tanks shall be in accordance with the following:

(1) The cover of each degreaser tank shall be closed if not handling parts in the cleaner;

(2) The operation of a cold cleaner using a solvent with a vapor pressure that exceeds one (1.0) mmHg (0.019 psi) measured at 20° C (68° F) is prohibited; and

(3) Work area fans shall be positioned so that air is not directed across the opening of the tanks so as to facilitate volatization.

g. **40 CFR 63, Subpart CCCCCC**
The "gasoline dispensing facility" located at facility, as defined under §63.11132, shall comply with all applicable requirements of 40 CFR 63, Subpart CCCCCC including, but not limited to, the following standards:

(1) **§ 63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.**

(i) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
[40 CFR§63.11116(a)]

(A) Minimize gasoline spills;
[40 CFR§63.11116(a)(1)]

(B) Clean up spills as expeditiously as practicable;
[40 CFR§63.11116(a)(2)]

(C) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
[40 CFR§63.11116(a)(3)]

(D) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
[40 CFR§63.11116(a)(4)]

4.1.8. Cooling Towers

The Cooling Towers shall operate in accordance with the following requirements:

a. The Cooling Towers shall use the control device specified under Section 1.0 at all times in operation, shall not exceed the specified maximum design and operational limits, and shall not exceed the emission limits in the following table:

Table 4.1.8(a): Cooling Tower Specifications

ID No.	Max Design Capacity Water Circulation Pump (gal/min)	Total Dissolved Solids (ppm)	Mist Eliminator Max Drift Rate (%)(1)	$PM_{2.5}/PM_{10}/PM$	
				PPH	TPY
CT1	52,000	1,500	0.0005	0.20	0.86
CT2	5,900	1,500	0.0005	0.02	0.10
CT3	8,500	1,500	0.0005	0.03	0.14
CT4	22,750	1,500	0.0005	0.09	0.37
CT5	90,000	1,500	0.0005	0.34	1.48
CT6	8,000	1,500	0.0005	0.03	0.13
CT7	3,000	1,500	0.0005	0.01	0.05
CT8	14,000	1,500	0.0005	0.05	0.23

(1) As based on manufacturer or vendor guarantee or applicable product literature.

b. BACT for all Cooling Towers listed under Table 4.1.8(a) is the PPH limit as based on the use of a High Efficiency Drift Eliminator with a maximum drift rate of 0.0005%.

4.1.9. Emergency Engines

The Emergency Engines, identified as EMGEN1 through EMGEN6, shall meet the following requirements:

a. Each unit shall not exceed 2,000 horsepower, shall be fired only with PNG, and shall not operate in excess of 100 hours per year nor exceed one (1) hour in any 24-hour period during times not defined as emergencies. Only one (1) engine shall be operated at a time during times not defined as emergencies;

b. The maximum emissions from each Emergency Engine shall not exceed the limits given in the following table:

Table 4.1.9(b): Emergency Engine Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH	TPY
CO	2.0 g/hp-hr	Subpart JJJJ Certification Annual Hrs of Op(3) Limit	17.64	0.88
NO_x	4.0 g/hp-hr	Subpart JJJJ Certification Annual Hrs of Op(3) Limit	8.82	0.44
$PM_{2.5(1)}$	PPH	Annual Hrs of Op(3) Limit	0.68	0.03
$PM_{10(1)}$	PPH	Annual Hrs of Op(3) Limit	0.68	0.03
PM(2)	PPH	Annual Hrs of Op(3) Limit	0.68	0.03
SO_2	PPH	Annual Hrs of Op(3) Limit	8.23e-03	4.12e-04

Pollutant	BACT Limit	BACT Technology	PPH	TPY
VOCs	1.0 g/hp-hr	Subpart JJJJ Certification, Annual Hrs of Op(3) Limit	4.41	0.22
CO_2e	TPY	Annual Hrs of Op(3) Limit	1,639	82

(1) Includes Condensables.
(2) Filterable Only.
(3) Non-emergency hours of operation.

c. **40 CFR 60, Subpart JJJJ**
Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.
[40 CFR §60.4233(e)]

Table 1 to Subpart JJJJ of Part 60—NO_X, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards					
			g/HP-hr			ppmvd at 15% O_2		
			NO_x	CO	VOC(d)	NO_x	CO	VOC(d)
Emergency	HP≥130	1/1/2009	2.0	4.0	1.0	160	540	86

(a) Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O_2.
(d) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.
[40 CFR60, Subpart JJJJ, Table 1]

d. **40 CFR 63, Subpart ZZZZ**
An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
[40 CFR §63.6590(c)]

(1) A new or reconstructed stationary RICE located at an area source;
[40 CFR §63.6590(c)(1)]

4.1.10. Control Devices

a. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in

this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

b. **Fabric Filters/Bin Vents/Baghouses**
Use of Fabric Filters/Bin Vents/Baghouses shall be in accordance with the following requirements:

(1) The permittee shall continuously monitor the differential pressure drop of baghouses EAF1-BH, EAF2-BH, and RM-BH so as to ensure proper continuous operation of the baghouses according to the following requirements:

(i) The monitoring system shall include an alarm to notify the control room if the differential pressure drop indicates abnormal performance of the unit. The range of acceptable pressure drops shall be based on the range recommended by the baghouse manufacturer or as defined during the most recent stack test; and

(ii) The frequency of data recording shall be, at a minimum, once every 15 minutes.

(2) Baghouses EAF1-BH and EAF2-BH shall meet all applicable requirements given under 40 CFR 60, Subpart AAa; and

(3) The filter material of all Fabric Filters/Bin Vents/Baghouses shall be replaced on a schedule as determined by the manufacturer.

c. **Melt Shop Particulate Matter Collection Systems**
At a minimum of once per rolling twelve (12) month period, the permittee shall thoroughly inspect the melt shop particulate matter collection systems to determine if the hooding and duct systems are effective in capturing emissions from the intended equipment and in preventing excess fugitive emissions from the building. All holes, cracks, and other conditions that would substantially reduce the collection efficiency of the emission capture system shall be fixed upon discovery at any time including the annual inspection. The results of the inspection and any corrective action taken shall be recorded pursuant to section 4.4.1. Any inspection performed pursuant to 40 CFR §60.274a (d) shall count toward compliance with 4.1.10(c).

d. **Wet Scrubbers/Mist Eliminators**
Use of Wet Scrubbers/Mist Eliminators shall be in accordance with the following requirements:

(1) Each scrubber/mist eliminator shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, compliance with the particulate matter emission limits given under Appendix A, Table A-4 and, for scrubber PKL-1, the HCl emission limits given under 4.1.6(b)(2) and (3);

(2) The permittee shall continuously monitor the differential pressure drop of scrubber TCM-ME so as to ensure proper continuous operation of the scrubber according to the following requirements:

(i) The monitoring system shall include an alarm to notify the control room if the differential pressure drop indicates abnormal performance of the unit. The range of acceptable pressure drops shall be based on the range recommended by the scrubber manufacturer or as defined during the most recent stack test; and

(ii) The frequency of data recording shall be, at a minimum, once every 15 minutes.

(3) The liquor flow rate to the scrubbers/mist eliminators shall be set at a rate as determined by manufacturer's recommendation or site-specific testing so as achieve compliance with the associated emission limit. Any media or entrapment lattice used in the mist elimination process shall be maintained/repaired/replaced according to manufacturer's recommendations.

e. **Flares**

The flares, identified as VTG-Flare 1 and VTG-Flare 2, shall operate according to the following requirements:

(1) Each flare have a MDHI that does not exceed 12.37 mmBtu/hr, shall be air-assisted, and shall be designed and operated according to the requirements specified in 40 CFR 60, Section §60.18;

(2) Each flare shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, a carbon monoxide and hydrocarbon DRE of 98.0%;

(3) Each flare shall be operated with a flame present at all times the VTGs are in operation, as determined by the methods specified in 4.2.10(b);

(4) The permittee shall operate and maintain each flare according to the manufacturer's specifications for operating and maintenance requirements to maintain the minimum guaranteed control efficiency listed under 4.1.10(e)(2); and

(5) **45CSR6**

Each flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

(i) The permittee shall not cause, suffer, allow or permit particulate matter to be discharged from the flares into the open air in excess of the quantity determined by use of the following formula:

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

Incinerator Capacity	Factor F
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

[45CSR§6-4.1]

(ii) No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR6 §4.3]

(iii) The provisions of subsection 4.3 shall not apply to smoke which is less than forty percent (40%) opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.
[45CSR6 §4.4]

(iv) No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR6 §4.5]

(v) Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR6 §4.6]

(vi) Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR6 §8.2]

4.1.11 **Additional GHG BACT Requirements**

In addition to the GHG BACT requirements specified elsewhere in this permit, the permittee shall meet the following requirements:

a. Develop and implement training programs and good housekeeping programs help to decrease energy consumption throughout the plant;

b. Develop and implement energy monitoring and management systems help provide for optimal energy recovery and distribution between processes at the plant; and

c. Across all plant operations, utilize where possible energy efficient devices (e.g., motors, drives, pumps, fans, compressors, controls);

d. Unless approved by the Director to remove, modify, or replace a specific control strategy, the permittee shall implement the GHG Mitigation and Efficiency strategies listed under Table 4-66 of the permit application for the specifically listed emission units; and

e. The permittee shall, within 60 days of plant startup, submit for review and approval to the Director a GHG BACT Implementation Plan that describes the method of implementation of the requirements given under (a) through (d) above. The plan will include specifics on actions taken to meet the requirements including training methods, use of specific energy efficient devices, O&M procedures, etc. This plan will thereafter be maintained on-site and updated as needed.

4.1.12. **Applicable Rules**

The permittee shall meet all applicable requirements, including those not specified above, as given under 45CSR2, 45CSR6, 45CSR7, 45CSR10, 40 CFR 60, Subparts Dc, AAa, and JJJJ, and 40 CFR 63, Subparts ZZZZ, YYYYY, and CCCCCC. Any final revisions made to the above rules will, where applicable, supercede those sections specifically cited in this permit.

4.1.13. **Stack Parameters**

The emission point stack parameters (Inner Diameter, Emission Point Elevation, and UTM Coordinates) shall be in accordance with the specifications as given on the Emission Points Data Sheet (Attachment J) in the most updated version of Permit Application R14-0039. If needed, and granted prior approval by the Director, the permittee may provide information to show that as-built variations in the stack parameters will not result in any substantive changes to the results of the air impacts analysis required under §45-14-9 and §45-14-10.

4.1.14. **Restricted Access**

The permittee shall restrict public access to all areas as indicated in the PSD Air Permit Application Modeling Report submitted on March 23, 2022 using physical fencing, signage at all entry and exit points, remote monitoring (e.g., 24-hour video surveillance), and on-site security staffing as necessary. All fencing shall be regularly inspected for deterioration and any required repairs shall take place as soon as is reasonably possible.

4.2. Monitoring, Compliance Demonstration, Recording and Reporting Requirements

4.2.1. **Maximum Design Capacity Compliance**

Compliance with the maximum design capacity limitations as given under Table 1.0 and Section 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate that does not exceed the specified value under Table 1.0 and Section 4.1.

4.2.2. **Maximum Design Heat Input Compliance**

Compliance with the various combustion unit MDHI limitations as given under Table 1.0 and Section 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under Table 1.0 and Section 4.1.

4.2.3. **Quantities Monitored/Recorded**

To determine continuous compliance with maximum production, throughputs, and other limits given in Section 4.1 of the permit, the permittee shall monitor and record the following:

Table 4.2.3: Facility Quantities Monitored/Recorded

Quantity Monitored/Recorded	Emission Unit(s)	Permit Citation	Units	Period
Steel Production	EAF/LMFs	4.1.2	Tons	Monthly, 12-Month Rolling Total
Scrap Steel DRI Carbon Alloys Lime Slag	Various	4.1.3(a)	Tons	Monthly, 12-Month Rolling Total
Storage Tank Throughputs				
Diesel	T1-T6	4.1.7(d)	Gallons	Monthly, 12-Month Rolling Total
Gasoline	T7			
Hydraulic Oil	T8-T9			
HCl	T10-T15			
Spent Pickle Liquor	T16-T23			
Used Oil	T24			

Quantity Monitored/Recorded	Emission Unit(s)	Permit Citation	Units	Period
Fuel Usage(1)	ASP	4.2.5	mmscf	Monthly
Non-Emergency Hours of Operation	EMGEN1 - 6	4.1.9(a)	Hours	Monthly, 12-Month Rolling Total

(1) Pursuant to 45CSR§2A-7.1(a)(1).

4.2.4. **EAFs/LMFs CEMS (BHST-1, BHST-2)**

Within 60 days after achieving the maximum design steel production rate at which the facility will be operated, but not later than 180 days after initial startup, the permittee shall, to show continuous compliance with the CO, NO_x, and SO_2 emission limits as given under Table 4.1.4(a), install and operate a Continuous Emissions Monitoring System (CEMS) for monitoring the emissions of CO, NO_x, and SO_2 from BHST-1 and BHST-2. The CEMS shall be installed, maintained and operated according to the manufacturers design, specifications, and recommendations, of which a protocol shall be developed by the permittee and approved by the Director prior to operation. The CEMS shall meet the applicable performance specifications required by 40 Part 60, Appendix B, the applicable quality assurance procedures required in 40 CFR Part 60, Appendix F, and the requirements of 40 CFR 60.13. In lieu of the requirements of 40 CFR Part 60, Appendix F, 5.1.1, 5.1.3, and 5.1.4, the permittee may conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on the CEMS at least once every three (3) years. The permittee shall conduct Cylinder Gas Audits (CGA) each calendar quarter during which a RAA or a RATA is not performed. Data recorded by the CEMS shall be kept for a period not less than three (3) years and shall be made available to the Director or his/her representative upon request.

4.2.5. **45CSR2**

The Water Bath Vaporizer (ASP) is subject to the applicable record-keeping requirements under 45CSR2A, including the requirements as given below under (a).

a. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit as specified in paragraphs 7.1.a.1 through 7.1.a.6, as applicable.
[45CSR§2A-7.1(a)]

(1) For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of start-up and shutdown, and the quantity of fuel consumed on a monthly basis.
[45CSR§2A-7.1(a)(1)]

4.2.6. **40 CFR 60, Subpart AAa**

The EAFs shall comply with all applicable Monitoring, Compliance Demonstration, Recording and Reporting Requirements of 40 CFR 60, Subpart AAa including, but not limited to, the following requirements:

a. **§ 60.273a Emissions Monitoring.**

(1) 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.
[40 CFR§60.273a(a)]

(2) No continuous monitoring system shall be required on any control device serving the dust-handling system.
[40 CFR§60.273a(b)]

(3) 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).
[40 CFR§60.273a(c)]

(4) 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.
[40 CFR§60.273a(d)]

(5) 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 [*40 CFR§60.273a(e)(1) through (8)*].
[40 CFR§60.273a(e)]

(6) 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 requirements given under 40 CFR§60.273a(f)(1) through (6)*].
[40 CFR§60.273a(f)]

(7) 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.
[40 CFR§60.273a(g)]

b. **§ 60.274a Monitoring of operations.**

(1) The owner or operator subject to the provisions of this subpart shall maintain records of the following information:
[40 CFR§60.274a(a)]

(A) All data obtained under paragraph (b) of this section; and
[40 CFR§60.274a(a)(1)]

(B) All monthly operational status inspections performed under paragraph © of this section.
[40 CFR§60.274a(a)(2)]

(2) 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 fl ow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric fl ow 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.
[40 CFR§60.274a(b)]

(3) 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).
[40 CFR§60.274a(c)]

4.2.7. **Cooling Tower**

For the purposes of demonstrating initial and continuing compliance with the operational limits set forth in Table 4.1.8(a), the permittee shall, for all cooling towers, within 180 days of startup, take an initial grab sample of the cooling tower circulating water and analyze such to determine the total solids content of the cooling tower circulating water. Thereafter, the permittee shall test for solids content on an annual basis (with no more than 14 months between tests).

4.2.8. **RICE Oxidation Catalysts**

If applicable, the permittee shall meet the following requirements for use of Oxidation Catalysts on the Emergency Engines:

a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices to ensure functional and effective operation of each engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices by:

(1) Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller; and

(2) Following the catalyst manufacturer emissions related operating and maintenance recommendations, or develop, implement, or follow a site-specific maintenance plan.

b. To demonstrate compliance with section 4.2.8, the permittee shall maintain records of the maintenance performed on each RICE and/or generator and shall maintain a copy of the site specific maintenance plan or manufacturer maintenance plan.

4.2.9. **Baghouse/Fabric Filter Compliance Demonstrations**

Unless specifically requested by the Secretary under 4.3.1. or listed in Table 4.3.2., compliance with all baghouse and fabric filter mass emission limits that have BACT outlet grain loading limits shall be based on vendor information or vendor guarantees that show the maximum outlet grain loading emissions from the baghouse/fabric filter is in compliance with the specific limit.

4.2.10. **Flares**

The permittee shall meet the following Monitoring, Compliance Demonstration, Recording and Reporting Requirements for the VTG Flare 1 and VTG Flare 2:

a. To demonstrate compliance with 4.1.10(e)(2), the permittee shall maintain records of all substantive actions undertaken in compliance with the manufacturer's specifications for operation and maintenance to maintain the minimum control efficiency;

b. To demonstrate compliance with the pilot flame requirements of 4.1.10(e)(3), the presence of a pilot flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the control room, when the pilot light is out;

c. For any absence of pilot flame, or other indication of smoking or improper equipment operation, the permittee must ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, the permittee must: (1) Check the air vent for obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable. (2) Check for liquid reaching the flare;

d. The permittee shall maintain records of the times and duration of all periods when the pilot flame was not present and vapors were vented to the device. The permittee shall maintain records of any inspections made pursuant to 4.2.10; and

e. Any time the flare is not operating when emissions are vented to it, shall be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days of the discovery.

4.2.11. **Control Device Monitoring**

The permittee shall install, maintain, and operate instrumentation to continuously monitor and record the control device parameters as required under 4.1.10 of this permit including, at a minimum, the following:

Table 4.2.11: Control Device Parameters Monitored/Recorded(1)

Control Device Description	Control Device ID	Parameter(s)
EAF Baghouses	EAF1-BH EAF2-BH	Pressure Drop
Rolling Mill Baghouse	RM-BH	Pressure Drop
Pickling Line Scrubber	PKL1-SCR	Liquid Flow Rate
Tandem Cold Mill Mist Eliminator	TCM-ME	Pressure Drop

(1) Does not include any monitoring as required by 40 CFR 60, Subpart AAa or 40 CFR 63, Subpart YYYYY.

4.2.12. **Visible Emissions Compliance Demonstrations**

Visible emissions Monitoring, Compliance Demonstration, Recording and Reporting shall be in accordance with the following requirements:

a. The opacity limitations and the associated compliance determinations are given in the following table for sources of particulate matter:

Table 4.2.12(a): Visible Emissions Compliance Demonstrations

Emission Point(s)	Opacity Limit (%)(1)	Rule Citation	Compliance Demonstration
Melt Shop			
BHST-1/2	3%	40 CFR§60.272a(a)(2)	Section 4.2.12(b)
MSFUG CASTFUG	6%	40 CFR§60.272a(a)(3) 40 CFR§63.10686(b)(2)	
EAFVF1/2	10%	40 CFR§60.272a(b)	
45CSR2 Applicable Emission Points			
ASP-1	10%	40CSR§2-3.1	Section 4.2.12(c)(2)(i)

Emission Point(s)	Opacity Limit (%)[1]	Rule Citation	Compliance Demonstration
Flares (45CSR6 Applicability)			
VTDST1/2	20%[2]	45CSR§6-4.3 and 4.4	Section 4.2.12(c)(2)(ii)
45CSR7 Applicable Emission Points (Non-Material Handling)			
RM-BH TCMST	20%[3]	45CSR§7-3.1 and 3.2	Section 4.2.12(c)(2)(iii)
PLST-1 PKLSB STM-BH SPMST1/2 CGL1-ST1/2 CGL2-ST1/2 SLAG-CUT-BH	20%[3]	45CSR§7-3.1 and 3.2	Section 4.2.12(c)(2)(iv)
45CSR7 Applicable Emission Points (Material Handling Stack/Vent)			
LCB-ST DRI-DOCK-ST DRIVF1/2/3/4 DRIBF1/2/3/4 DRI-DB1-BH DRI-DB2-BH DRI-CONV-BH LIME-DUMP-ST CARBON-DUMP-ST ALLOY-HANDLE-ST	20%[3]	45CSR§7-3.1 and 3.2	Section 4.2.12(c)(2)(iv)
45CSR7 Applicable Emission Points (Material Handling Non-Stack/Vent)			
DRI-DOCK-FUG BULK-DRI-1/2 DRI-EMG-1/2 SCRAP-DOCK-FUG SCRAP-RAIL-FUG SCRAP-BULK1 - 39 SLGSKP1 -3 SCRPSKP1 -4 LIME-DUMP-FUG CARBON-DUMP-FUG ALLOY-HANDLE-FUG Haulroads	20%[3]	45CSR§7-3.1 and 3.2	Section 4.2.12(c)(2)(iv)
Cooling Towers			
CT1 - 8	20%[3]	45CSR§7-3.1 and 3.2	Not Required[4]

Emission Point(s)	Opacity Limit (%)[1]	Rule Citation	Compliance Demonstration
Other Natural Gas Combustion			
TFST-1/2 GALVFN1-ST GALVFN2-ST GALVFUG SLAG-CUT-NG EMGEN1 - 6	None[5]	n/a	n/a

(1) Where multiple opacity limits apply, the more restrictive is listed.
(2) Shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.
(3) Shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
(4) Due to the nature of the particulate matter emissions from the Cooling Towers (entrained in droplets), a compliance demonstration for the Cooling Towers is not practical.
(5) Natural gas combustion does not meet the definition of a "source operation" pursuant to 45CSR§7-2.38.

b. **40 CFR 60, Subpart AAa/40 CFR 63, Subpart YYYYY**

For Emission Points BHST-1/2, MSFUG, and CASTFUG, the permittee shall show compliance with the opacity requirements of 40 CFR 60, Subpart AAa, §60.272a(a) and 40 CFR 63, Subpart YYYYY, §63.10686, pursuant to the applicable requirements of Subpart AAa and Subpart YYYYY, respectively. Compliance with the opacity requirements of Subpart AAa shall show compliance with the opacity requirements of 45CSR7;

c. **Visible Emissions Compliance Demonstrations**

Visible emissions Monitoring, Compliance Demonstration, Recording and Reporting shall be in accordance with the following requirements:

(1) The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 which may include online web-based training as supplied by a Method 9 training company; and

(2) Specific emission points shall meet the following visible emissions monitoring requirements:

(i) **45CSR2**

Upon request by the Secretary, compliance with the visible emission requirements of Sections 3.1 and 3.2 of 45CSR2 as applicable to Emission Point ASP-1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 3.1 of 45CSR2;

(ii) **45CSR6**

Compliance with the visible emission requirements of Section 3.1 and 3.2 of 45CSR7 as applicable to Emission Points VTDST1/2 shall be in accordance with the following: Visible emission checks shall be conducted at least once every seven (7) calendar days and these checks shall be performed for a sufficient time interval, but no less than a 6-minute interval, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions. If one year of weekly Method 22 readings show that there are no visible emissions, then the frequency of observations can be reduced to quarterly. If, during quarterly checks, visible emissions are observed, then the frequency of observations shall be returned to weekly;

(iii) **45CSR7**

Compliance with the visible emission requirements of Section 3.1 and 3.2 of 45CSR7 as applicable to Emission Points RM-BH and TCMST shall be in accordance with the following: Visible emission checks shall be conducted at least once per seven (7) calendar days. These checks shall be performed for a sufficient time interval, but no less than three (3) 6-minute intervals, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions; and

(iv) **45CSR7**

Compliance with the visible emission requirements of Section 3.1 and 3.2 of 45CSR7 as applicable to all other emission points, excluding those identified under 4.2.9(c)(2)(iii), subject to 45CSR7 as shown under Table 4.2.9 above shall be in accordance with the following: Visible emission checks shall be conducted at least quarterly. These checks shall be performed for a sufficient time interval, but no less than a 6-minute interval, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

(3) If visible emissions are present at a source(s), the permittee shall perform Method 9 readings to confirm that visible emissions are within the applicable limits of this permit. Said Method 9 readings shall be taken as soon as practicable, but within twenty-four (24) hours of the Method 22 emission check.

e. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by 4.2.12 documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent; and

f. Any deviation of the allowable visible emission requirement for any emission source discovered during observation using 40 CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

4.2.13. **Emission Point Map**

The permittee shall prepare and maintain an emission point map of the facility. This map shall consist of a diagram of the location and identification of all emission points at the facility that vent to ambient air. A legend shall be prepared with the map that identifies the emission point type and source(s) contributing to that emission point. This map shall be prepared within 180 days of startup and thereafter be updated as necessary to reflect current facility operations. The map(s) shall be retained on-site and be made available to the Director or his/her duly authorized representative upon request.

4.2.14. **Vendor Guarantees**

The permittee shall, at the time of initial startup, maintain on-site and have readily available to be made available to the Director or his/her representative upon request, a copy of the all current vendor guarantees relevant to the air emissions associated with the facility. This includes information relating to the performance of both emission units and control devices.

4.3. Performance Testing Requirements

4.3.1. **General Performance Testing**

At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.

4.3.2. **Specific Emissions Point Performance Testing**

Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), performance tests on the emission units (as emitted from the listed emission points) to show compliance with the specified pollutants as given in the following table:

Table 4.3.2.: Performance Testing Requirements

Emission Unit(s)	Emission Point(s)	Pollutants	Limit
EAF1/LMF1/CAST1	BHST-1[(2)]	All Pollutants under Table 4.1.4(a) with the exception of Total HAPs, and CO_2e.	PPH[(1)] gr/dcsf (PM)
EAF2/LMF2/CAST2	BHST-2[(2)]		
TF1	TFST-1	CO and NO_x	PPH[(1)]
GALVFN1 GALVFN2[(3)]	GALVFN1-ST GALVFN2-ST		
ASP	ASP-1		
RM	RM-BH	$PM_{2.5}$, PM_{10}, PM[(4)]	PPH[(1)(4)] gr/dscf
SPM1 SPM2[(3)]	SPMST1 SPMST2		

Emission Unit(s)	Emission Point(s)	Pollutants	Limit
PKL-1	PKLST-1	HCl	PPH(1) ppm

(1) Where applicable, test results shall also be used to show compliance with lb/ton, lb/mmBtu, or other BACT performance limits.
(2) Initial and periodic performance testing on PM emitted from BHST-1 and BHST-2 shall be in accordance with the procedures outlined under §60.18 and §60.275a.
(3) Permittee may choose one of the identical listed units to test.
(4) Filterable Only.

4.3.3 With respect to the performance testing required above under Section 4.3.2, the permittee shall, after the initial performance test, periodically conduct additional performance testing on the specified sources according to the following schedule:

Table 4.3.3.: Performance Testing Schedule

Test	Test Results	Retesting Frequency
Initial Baseline	<50% of weight emission standard	Once/3 years
Initial Baseline	between 50% and 80 % of weight emission standard	Once/2 years
Initial Baseline	>80% of weight emission standard	Annual
Annual	after three successive tests indicate mass emission rates <50% of weight emission standard	Once/3 years
Annual	after two successive tests indicate mass emission rates <80 % of weight emission standard	Once/2 years
Annual	any tests indicates a mass emission rate >80% of weight emission standard	Annual
Once/2 years	After two successive tests indicate mass emission rates <50% of weight emission standard	Once/3 years
Once/2 years	any tests indicates a mass emission rate <80 % of weight emission standard	Once/2 years
Once/2 years	any tests indicates a mass emission rate >80% of weight emission standard	Annual
Once/3 years	any tests indicates a mass emission rate <50% of weight emission standard	Once/3 years
Once/3 years	any test indicates mass emission rates between 50% and 80 % of weight emission standard	Once/2 years
Once/3 years	any test indicates a mass emission rate >80% of weight emission standard	Annual

4.3.4. Performance testing for pollutants monitored by CEMS (CO, NO_x, and SO_2, as emitted from the Emission Point BHST-1 and BHST-2) are not subject to the performance testing schedule given under Table 4.3.3 and any performance testing shall, unless at such other reasonable time(s) as the Secretary may designate, be conducted on a schedule consistent with the required RATA testing.

4.3.5. The permittee shall use the test methods specified in Table 4.3.5. unless granted approval in writing by the Director to use an alternative test method in a protocol submitted pursuant to 3.3.1(c).

Table 4.3.5: Performance Test Methods

Pollutant	Test Method[1]
CO	Method 10
NO_x	Method 7E
$PM_{2.5}$ (filterable only)	Method 201A
PM_{10}/PM (filterable only)	Method 5
$PM_{2.5}$/PM_{10} (condensable)	Method 202
SO_2	Method 6C
VOCs	Method 18/25A
Lead	Method 12
HCl	Method 26A
Fluoride	Method 13

(1) All test methods refer to those given under 40 CFR 60, Appendix A

4.3.6. **Slag Testing**
Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, and at a minimum of once per rolling twelve (12) month period thereafter, the permittee shall perform a test on a representative sample of EAF and LMF slag (that was produced on-site) to determine the concentration of lead and other metals defined as HAPs in the slag. This testing shall be performed in accordance with a protocol submitted pursuant to 3.3.1(c).

4.3.7. **40 CFR 60, Subpart AAa**
The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 60, Subpart AAa, Section §60.275a.

4.3.8. **40 CFR 63, Subpart YYYYY**
The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 63, Subpart YYYYY, Section §63.10686(d).

4.3.9. **40 CFR 60, Subpart JJJJ**
The permittee shall meet all applicable Performance Testing requirements for the emergency engines as given under 40 CFR 60, Subpart JJJJ, Section §60.4244.

4.4. Recordkeeping Requirements

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

4.5. Additional Reporting Requirements

4.5.1. The permittee shall submit the following information to the DAQ according to the specified schedules:

a. The permittee shall submit reports of all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports; and

b. The permittee shall submit to the Director on or before March 15, a certification of compliance with all requirements of this permit for the previous calendar year ending on December 31. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3) the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____ _____
(please print or type) Name Title

Telephone No._____ Fax No. _____

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[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.

Appendix A: Table A-1

Nucor Steel West Virginia LLC: WV Steel Plant

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Table A-1 : Material Handling Stack/Vent Emission Limits

Emission Point ID	Description	Flow Rate[1]	Filter Outlet (gr/dscf)[2]		Hourly Emissions (lb/hr)[3]		Annual Emissions (ton/yr)	
		dscf/min	$PM_{2.5}$	PM/PM_{10}	$PM_{2.5}$	PM/PM_{10}	$PM_{2.5}$	PM/PM_{10}
LCB-ST	Lime, Carbon, and Briquetter Silos	38,000	0.0050	0.0050	1.63	1.63	7.13	7.13
DRI-DOCK-ST	DRI Unloading Dock (two units)	4,000	0.0005	0.0010	0.017	0.034	0.074	0.150
DRIVF1	DRI Storage Silo 1 - Baghouse	1,200	0.0005	0.0010	0.005	0.010	0.022	0.045
DRIBV1	DRI Storage Silo 1 - Bin Vent	148	0.0005	0.0010	0.001	0.001	0.003	0.006
DRIVF2	DRI Storage Silo 2 - Baghouse	1,200	0.0005	0.0010	0.005	0.010	0.022	0.045
DRIBV2	DRI Storage Silo 2 - Bin Vent	148	0.0005	0.0010	0.001	0.001	0.003	0.006
DRIVF3	DRI Storage Silo 3 - Baghouse	1,200	0.0005	0.0010	0.005	0.010	0.022	0.045
DRIBV3	DRI Storage Silo 3 - Bin Vent	148	0.0005	0.0010	0.001	0.001	0.003	0.006
DRIVF4	DRI Storage Silo 4 - Baghouse	1,200	0.0005	0.0010	0.005	0.010	0.022	0.045
DRIBV4	DRI Storage Silo 4 - Bin Vent	148	0.0005	0.0010	0.001	0.001	0.003	0.006
DRI-DB1-BH	DRI Day Bin #1	1,200	0.0005	0.0010	0.005	0.010	0.022	0.045
DRI-DB2-BH	DRI Day Bin #2	1,200	0.0005	0.0010	0.005	0.010	0.022	0.045
DRI-CONV-BH	DRI Transfer Conveyors	1,200	0.0005	0.0010	0.005	0.010	0.022	0.045
SLAG-CUT-BH	Slag Cutting	100,000	0.0010	0.0010	0.857	0.857	3.754	3.754
EAFVF1	EAF Baghouse 1 Dust Silo	1,000	0.0100	0.0100	0.086	0.086	0.375	0.375
EAFVF2	EAF Baghouse 2 Dust Silo	1,000	0.0100	0.0100	0.086	0.086	0.375	0.375
LIME-DUMP-ST	Lime Dump Station	2,000	0.0050	0.0050	0.086	0.086	0.375	0.375
CARBON-DUMP-ST	Carbon Dump Station	2,000	0.0050	0.0050	0.086	0.086	0.375	0.375
ALLOY-HANDLE-ST	Alloy Handling System	3,800	0.0050	0.0050	0.163	0.163	0.713	0.713

(1) Air flow rates represent the modeled mechanical flow rate through the listed particulate matter control device during steady-state operation.

(2) gr/dscf = grains/dry standard cubic feet. For these emission points, baghouse/fabric filter is the BACT technology and the outlet loading is $PM_{2.5}/PM_{10}$/PM(filterable) BACT limit for the specified emission points.

(3) Hourly emission limits are based on a 24-hour average.

Appendix A: Table A-2
Nucor Steel West Virginia LLC: WV Steel Plant
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Table A-2 : Material Handling Non-Stack/Vent Emission Limits

Emission Point ID	Description	Material	Control Technology[1][2][3]	Hourly Emissions (lb/hr)[3]			Annual Emissions (ton/yr)		
				$PM_{2.5}$	PM_{10}	PM	$PM_{2.5}$	PM_{10}	PM
DRI-DOCK-FUG	DRI Unloading Dock - Fugitives	DRI	Good Housekeeping Practices Enclosure	1.40E-02	9.26E-02	1.96E-01	7.82E-03	5.16E-02	1.09E-01
BULK-DRI-1	DRI Silo #1 Loadout	DRI	Good Housekeeping Practices Enclosure	1.79E-03	1.18E-02	2.49E-02	7.82E-03	5.16E-02	1.09E-01
BULK-DRI-2	DRI Silo #2 Loadout	DRI	Good Housekeeping Practices Enclosure	1.79E-03	1.18E-02	2.49E-02	7.82E-03	5.16E-02	1.09E-01
DRI-EMG-1	DRI Conveyor #1 Emergency Chute	DRI	Good Housekeeping Practices	1.40E-02	9.26E-02	1.96E-01	2.80E-05	1.85E-04	3.92E-04
DRI-EMG-2	DRI Silos Emergency Chute	DRI	Good Housekeeping Practices	8.98E-02	5.93E-01	1.25E+00	8.08E-04	5.33E-03	1.13E-02
LIME-DUMP-FUG	Lime Dump Station Fugitives	Lime	Good Housekeeping Practices Enclosure	0.003	0.017	0.050	0.012	0.076	0.219
CARBON-DUMP-FUG	Carbon Dump Station Fugitives	Carbon		0.001	0.009	0.025	0.006	0.038	0.109
ALLOY-HANDLE-FUG	Alloy Handling System Fugitives	Alloy		0.007	0.044	0.125	0.010	0.067	0.194
SCRAP-DOCK-FUG	Barge Scrap Unloading	Scrap	Good Housekeeping Practices	0.026	0.090	0.180	0.031	0.108	0.217
SCRAP-RAIL-FUG	Rail Scrap Unloading	Scrap	Good Housekeeping Practices	0.009	0.030	0.060	0.004	0.014	0.029
SCRAP-BULK34	Barge Scrap Pile Loading	Scrap	Good Housekeeping Practices	0.039	0.259	0.548	0.047	0.312	0.659
SCRAP-BULK35	Barge Scrap Pile Loadout	Scrap	Good Housekeeping Practices	0.018	0.119	0.251	0.047	0.312	0.659
SCRAP-BULK36	Rail Scrap Pile Loading	Scrap	Good Housekeeping Practices	0.008	0.052	0.110	0.006	0.042	0.088
SCRAP-BULK37	Rail Scrap Pile Loadout	Scrap	Good Housekeeping Practices	0.018	0.119	0.251	0.006	0.042	0.088
SCRAP-BULK38	Truck Scrap Pile Loading	Scrap	Good Housekeeping Practices	0.013	0.086	0.183	0.009	0.062	0.132
SCRAP-BULK39	Truck Scrap Pile Loadout	Scrap	Good Housekeeping Practices	0.018	0.119	0.251	0.009	0.062	0.132
SCRAP-BULK40	Scrap Charging	Scrap	Good Housekeeping Practices	0.014	0.095	0.201	0.063	0.416	0.879
SCRAP-BULK1	Dig Slag Inside Pot Barn	Slag	Good Housekeeping Practices Enclosure Wet Suppression	0.029	0.078	0.160	0.053	0.141	0.289
SCRAP-BULK2	Loader Transport & Dump Slag Into Trench	Slag		0.029	0.078	0.160	0.053	0.141	0.289
SCRAP-BULK3	Loader Transport & Dump Slag Into F1 Feed Hopper/Grizzly	Slag		0.012	0.031	0.064	0.021	0.056	0.116
SCRAP-BULK4	TP: F1 Feed Hopper/Grizzly to P1 Oversize Pile	Slag		0.026	0.026	0.075	0.047	0.047	0.135
SCRAP-BULK5	TP: F1 Feed Hopper/Grizzly to C7 Crusher Conveyer	Slag		0.001	0.001	0.001	0.001	0.001	0.003
SCRAP-BULK6	TP: F1 Feed Hopper/Grizzly to C1A Main Conveyer	Slag		0.008	0.008	0.022	0.014	0.014	0.040
SCRAP-BULK7	TP: C7 to CR1 Crusher	Slag		0.002	0.002	0.006	0.004	0.004	0.011
SCRAP-BULK8	TP: CR1 Crusher to C8 Conveyer	Slag		0.012	0.012	0.026	0.021	0.021	0.047
SCRAP-BULK9	TP: CR1 Crusher to P2 Off-spec Storage	Slag		0.010	0.010	0.022	0.018	0.018	0.040
SCRAP-BULK10	TP: C8 Conveyer to C9 Conveyer	Slag		0.000	0.000	0.000	0.000	0.000	0.001
SCRAP-BULK11	TP: C9 Conveyer to C1A Conveyer	Slag		0.001	0.001	0.002	0.002	0.002	0.004
SCRAP-BULK12	TP: C1A Conveyer to B1 Surge Bin	Slag		0.001	0.001	0.002	0.002	0.002	0.004
SCRAP-BULK13	TP: B1 Surge Bin to C1 Conveyer	Slag		0.003	0.003	0.008	0.006	0.006	0.015
SCRAP-BULK14	TP: C1 Conveyor through M1 Mag Splitter to S1 Slag Screen	Slag		0.003	0.003	0.008	0.006	0.006	0.015
SCRAP-BULK15	TP: C1 Conveyor through M1 Mag Splitter to S2 Scrap Screen	Slag		0.003	0.003	0.008	0.005	0.005	0.015
SCRAP-BULK16	TP: S2 Scrap Screen to C6 Conveyor	Slag		0.0017	0.0017	0.0050	0.0031	0.0031	0.0090
SCRAP-BULK17	TP: S2 Scrap Screen to P3 Off-spec Storage	Slag		0.0015	0.0015	0.0043	0.0027	0.0027	0.0077
SCRAP-BULK18	TP: C6 Conveyor to P4 Off-spec Storage	Slag		0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
SCRAP-BULK19	TP: S1 Slag Screen to C2 Conveyer	Slag		0.0015	0.0015	0.0043	0.0027	0.0027	0.0077
SCRAP-BULK20	TP: C2 Conveyer to C5 Conveyer	Slag		0.0012	0.0012	0.0032	0.0021	0.0021	0.0058
SCRAP-BULK21	TP: C5 Conveyer to SLGSKP1	Slag		0.0012	0.0012	0.0032	0.0021	0.0021	0.0058

Appendix A: Table A-2
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Table A-2 : Material Handling Non-Stack/Vent Emission Limits (Continued)

Emission Point ID	Description	Material	Control Technology	Hourly Emissions (lb/hr)[3]			Annual Emissions (ton/yr)		
				$PM_{2.5}$	PM_{10}	PM	$PM_{2.5}$	PM_{10}	PM
SCRAP-BULK22	TP: S1 Slag Screen to C4 Conveyer	Slag	Good Housekeeping Practices Enclosure Wet Suppression	0.0192	0.0192	0.0553	0.0346	0.0346	0.0995
SCRAP-BULK23	TP: C4 Conveyer to SLGSKP3	Slag		0.0009	0.0009	0.0024	0.0016	0.0016	0.0044
SCRAP-BULK24	TP: S1 Slag Screen to C3 Conveyer	Slag		0.0144	0.0144	0.0414	0.0260	0.0260	0.0746
SCRAP-BULK25	TP: C3 Conveyer to SLGSKP2	Slag		0.0006	0.0006	0.0016	0.0011	0.0011	0.0029
SCRAP-BULK26	TP: S1 Slag Screen to SLGSKP4	Slag		0.0096	0.0096	0.0276	0.0173	0.0173	0.0497
SCRAP-BULK27	Loader transports & loads products into trucks to product stockpiles	Slag		0.0011	0.0028	0.0058	0.0019	0.0051	0.0104
SCRAP-BULK28	Truck Dumps Products into Product Stockpiles	Slag		0.0117	0.0314	0.0642	0.0210	0.0564	0.1155
SCRAP-BULK29	Loader Into trucks, Oversize to Drop Ball Crusher	Slag		0.0117	0.0314	0.0642	0.0210	0.0564	0.1155
SCRAP-BULK30	Truck Dumps Oversize into Drop Ball Area	Slag		0.0002	0.0006	0.0013	0.0004	0.0011	0.0023
SCRAP-BULK31	Truck Transports Ladle Lip/Meltshop Cleanup Materials & Dumps at Drop Ball Site	Slag		0.0008	0.0020	0.0042	0.0014	0.0037	0.0075
SCRAP-BULK32	Truck Transports & Dumps Tundish at Lancing Station	Slag		0.0004	0.0011	0.0022	0.0007	0.0020	0.0040
SCRAP-BULK33	Ball Drop Crusher	Slag		0.0012	0.0012	0.0028	0.0022	0.0022	0.0050
SLGSKP1	Slag Stockpile 1	Slag	Water Sprays/Wet Suppression	0.01	0.06	0.12	0.04	0.26	0.54
SLGSKP2	Slag Stockpile 2	Slag		0.01	0.06	0.12	0.04	0.26	0.54
SLGSKP3	Slag Stockpile 3	Slag		0.01	0.06	0.12	0.04	0.26	0.54
SLGSKP4	Slag Stockpile 4	Slag		0.01	0.06	0.12	0.04	0.26	0.54
SCRPSKP1	Scrap Metal Stockpile 1	Scrap		0.02	0.15	0.31	0.10	0.64	1.36
SCRPSKP2	Scrap Metal Stockpile 2	Scrap		0.02	0.15	0.31	0.10	0.64	1.36
SCRPSKP3	Scrap Metal Stockpile 3	Scrap		0.02	0.15	0.31	0.10	0.64	1.36

(1) For the purposes of this permit, "Good Housekeeping Practices" are defined as maintaining all enclosures free of holes and cleaning spilled particulate matter from exposed areas where fugitive entrainment may easily occur.

(2) For the purposes of this permit, "Wet Supression" is defined as maintaining the mositure content of the material at a level that mitigates fugitive entrainment of particulate matter from the surface of the material.

(3) The enclsoures shall be as described in the Bulk Materials Transfer/Process Inputs and Assumptions Table in the permit application.

(4) Hourly emission limits are based on a 24-hour average and are the BACT limits for the listed emission sources.

Appendix A: Table A-3
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Table A-3: Natural Gas Combustion Emission Limits

Emission Point ID	Emission Unit ID	Description	MDHI	CO		NO_x		$PM_{2.5}/PM_{10}$ (1)		PM (2)		SO_2		VOCs		CO_2e		Total HAPs	
			mmBtu/hr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
MSFUG	LD	Ladle Dryer	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	LPHTR1	Horizontal Ladle Preheater 1	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	LPHTR2	Horizontal Ladle Preheater 2	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	LPHTR3	Horizontal Ladle Preheater 3	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	LPHTR4	Horizontal Ladle Preheater 4	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	LPHTR5	Horizontal Ladle Preheater 5	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	LPHTR6	Vertical Ladle Preheater 6	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	LPHTR7	Vertical Ladle Preheater 7	15.00	1.24	5.41	1.47	6.44	0.11	0.49	0.028	0.122	0.009	0.039	0.08	0.35	1,756	7,693	0.001	0.006
MSFUG	TD	Tundish Dryer 1	6.00	0.49	2.16	0.59	2.58	0.04	0.20	0.011	0.049	0.004	0.015	0.03	0.14	703	3,077	0.011	0.048
MSFUG	TPHTR1	Tundish Preheater 1	9.00	0.74	3.25	0.88	3.86	0.07	0.29	0.017	0.073	0.005	0.023	0.05	0.21	1,054	4,616	0.017	0.073
MSFUG	TPHTR2	Tundish Preheater 2	9.00	0.74	3.25	0.88	3.86	0.07	0.29	0.017	0.073	0.005	0.023	0.05	0.21	1,054	4,616	0.017	0.073
MSFUG	SENPHTR1	Subentry Nozzle (SEN) Preheater 1	1.00	0.08	0.36	0.10	0.43	0.007	0.033	0.002	0.008	0.001	0.003	0.01	0.02	117	513	0.002	0.008
MSFUG	SENPHTR2	Subentry Nozzle (SEN) Preheater 2	1.00	0.08	0.36	0.10	0.43	0.007	0.033	0.002	0.008	0.001	0.003	0.01	0.02	117	513	0.002	0.008
GALVFN1-ST	GALVFN1	Galvanizing Furnace #1	64.00	5.27	23.09	3.20	14.02	0.48	2.09	0.119	0.522	0.038	0.165	0.35	1.51	7,494	32,825	0.118	0.517
GALVFN2-ST	GALVFN2	Galvanizing Furnace #2	64.00	5.27	23.09	3.20	14.02	0.48	2.09	0.119	0.522	0.038	0.165	0.35	1.51	7,494	32,825	0.118	0.517
GALVFUG	BOXANN1	Box Annealing Furnace #1	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN2	Box Annealing Furnace #2	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN3	Box Annealing Furnace #3	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN4	Box Annealing Furnace #4	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN5	Box Annealing Furnace #5	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN6	Box Annealing Furnace #6	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN7	Box Annealing Furnace #7	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN8	Box Annealing Furnace #8	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN9	Box Annealing Furnace #9	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN10	Box Annealing Furnace #10	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN11	Box Annealing Furnace #11	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN12	Box Annealing Furnace #12	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN13	Box Annealing Furnace #13	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN14	Box Annealing Furnace #14	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN15	Box Annealing Furnace #15	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN16	Box Annealing Furnace #16	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN17	Box Annealing Furnace #17	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN18	Box Annealing Furnace #18	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN19	Box Annealing Furnace #19	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN20	Box Annealing Furnace #20	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN21	Box Annealing Furnace #21	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
GALVFUG	BOXANN22	Box Annealing Furnace #22	5.00	0.41	1.80	0.25	1.10	0.04	0.16	0.009	0.041	0.003	0.013	0.03	0.12	585	2,564	0.009	0.040
TFST-1	TF1	Hot Mill Tunnel Furnace 1	150.00	12.35	54.11	10.50	45.99	1.12	4.90	0.279	1.224	0.088	0.386	0.81	3.54	17,565	76,933	0.277	1.212
SLAG-CUT-NG	SLAG-CUT	Slag Cutting	2.40	0.20	0.87	0.24	1.03	0.02	0.08	0.004	0.020	0.001	0.006	0.01	0.06	281	1,231	0.004	0.019
ASP-1	ASP	Water Bath Vaporizer	11.00	0.91	3.97	1.08	4.72	0.08	0.36	0.020	0.090	0.006	0.028	0.06	0.26	1,288	5,642	0.020	0.089

(1) Inlcudes Condensables
(2) Filterable Only.

Appendix A: Table A-4

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Table A-1 : Hot Mill and Cold Mill Stack/Vent Emission Limits

Emission Point ID	Description	Control Device	Flow Rate[1]	Filter/Scrubber Outlet (gr/dscf)[2]			Hourly Emissions (lb/hr)[3]			Annual Emissions (ton/yr)		
			dscf/min	$PM_{2.5}$	PM_{10}	PM	$PM_{2.5}$	PM_{10}	PM	$PM_{2.5}$	PM_{10}	PM
RM-BH	Rolling Mill	Baghouse	117,716	0.0100	0.0100	0.0050	5.04	10.09	10.09	22.10	44.19	44.19
PLST-1	Pickling Line 1	Scrubber	7,185	0.0100	0.0100	0.0100	0.62	0.62	0.62	2.70	2.70	2.70
PKLSB	Pickle Line Scale Breaker	Baghouse	52,972	0.0030	0.0030	0.0030	1.36	1.36	1.36	5.97	5.97	5.97
TCMST	Tandem Cold Mill	Mist Eliminator	202,162	0.0066	0.0066	0.0100	11.44	11.44	17.33	50.09	50.09	75.90
STM-BH	Standalone Temper Mill	Mist Eliminator	45,000	0.0013	0.0024	0.0025	0.50	0.93	0.96	2.20	4.05	4.22
SPMST1	Skin Pass Mill #1	Baghouse	24,587	0.0050	0.0100	0.0100	1.05	2.11	2.11	4.62	9.23	9.23
SPMST2	Skin Pass Mill #2	Baghouse	24,587	0.0050	0.0100	0.0100	1.05	2.11	2.11	4.62	9.23	9.23
CGL1-ST1	CGL1 - Cleaning Section	Scrubber	6,123	0.0030	0.0030	0.0030	0.16	0.16	0.16	0.69	0.69	0.69
CGL1-ST2	CGL1 - Passivation Section	Scrubber	9,350	0.0030	0.0030	0.0030	0.24	0.24	0.24	1.05	1.05	1.05
CGL2-ST1	CGL2 - Cleaning Section	Scrubber	6,123	0.0030	0.0030	0.0030	0.16	0.16	0.16	0.69	0.69	0.69
CGL2-ST2	CGL2 - Passivation Section	Scrubber	9,350	0.0030	0.0030	0.0030	0.24	0.24	0.24	1.05	1.05	1.05

(1) Air flow rates represent the modeled mechanical flow rate through the listed particulate matter control device during steady-state operation.

(2) gr/dscf = grains/dry standard cubic feet. For these emission points, the listed control device is the BACT technology and the outlet loading is PM2.5/PM10/PM(filterable) BACT limit for the specified emission points.

(3) Hourly emission limits are based on a 24-hour average.