West Virginia Department of Environmental Protection
Division of Air Quality

Jim Justice
Governor

Austin Caperton
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

WVA Manufacturing, LLC
Alloy, WV
R30-01900001-2017

William F. Durham
Director

Issued: September 18, 2017 • Effective: October 2, 2017
Expiration: September 18, 2022 • Renewal Application Due: March 18, 2022

Permit Number: **R30-01900001-2017**
Permittee: **WVA Manufacturing, LLC**
Facility Name: **Alloy Facility**
Permittee Mailing Address: **P.O. Box 158, Alloy, West Virginia 25002**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Alloy, Fayette County, West Virginia
Telephone Number:	(304) 779-3200
Type of Business Entity:	LLC
Facility Description:	Ferroalloy Manufacturer
SIC Codes:	3313 Primary; 4911 Secondary; NA Tertiary
UTM Coordinates:	476.01 km Easting • 4221 km Northing • Zone 17

Permit Writer: Rex Compston, P.E.

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.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

Table of Contents

1.0. Emission Units and Active R13, R14, and R19 Permits 3

2.0. General Conditions 18

3.0. Facility-Wide Requirements and Permit Shield 27

Source-specific Requirements

4.0. Boiler Requirements 40

5.0. Electric Submerged Arc Furnaces Requirements 41

6.0. Microsilica Operations Requirements 53

APPENDIX A: 45CSR10 Monitoring Plan for Alloy Facility

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
Raw Material Stock Piles Group 002					
002-05	Fugitive	Raw Material Storage Piles	N/A	*Nominal Capacity:* 7 acres	None
C6M Mix System (Buildings 20C, 20D) Group 002					
002-06	Stack 008 & Fugitives from Building	C6M Mix System consists of: System Manufacturer: Jeffrey Unloading Pit Conveyor Elevator Bin 1 Bin 2 Bin 3 Bin 4 Conveyor Loading Station	7/1/1941	*Nominal Capacity:* 16.6 tons/hr	Baghouse 34 (0014) and Building Control
0014	Stack 008	Baghouse 34 (0014) Min Collection Eff: 99%	7/1/1972	*Design Capacity:* 99,360 CFM @ 90 °F	N/A
Mix Delivery System (Building10B) and C3M Furnace Mix System (Buildings 10, 10A, 21) Group 002					
002-07	Fugitives	**Mix Delivery System to C3M Furnace Mix System to Furnaces 3, 6, 7, 9, 14, 15, and 16** Mix Delivery System consists of: Railcar Unloading to Unloading Unloading Bin #1 and Unloading Bin #2 Unloading Bin #1 to Apron Conveyor #1 Unloading Bin #2 to Apron Conveyor #2 Apron Conveyors #1 and #2 to 48" Pocket Belt #1 48" Pocket Belt #1 to 36" By Pass Conveyor and Inclined Screen 36" in By Pass Conveyor to 36 " Fines Conveyor and 48" Pocket Belt #8 36" Fines Conveyor to Fines Bin Coal and Fines Bin Sand Fines Bin Coal and Fines Bin Sand to Fines Bin Loadout Inclined Screen to 36" Fines Conveyor (See Above Loop) and 48" Pocket Belt #8 48" Pocket Belt #8 to C3M Furnace Mix System	4/1/1996	*Nominal Capacity:* 300 tons/hr	Building Control/ Covered Conveyors

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
002-07	Fugitives from Building	**C3M Furnace Mix System consists of:**	Installed 7/1/1935 Modified 7/1/1998	*Nominal Capacity:* 90 tons/hr	Building Control
		from 48" Pocket Belt #8 to 36" Reversible Shuttle Conveyor #10			
		36" Reversible Shuttle Conveyor #10 to 48" Reversible Distributing Conveyor #12, Bin 309, Bin 310, Bin 311, and 36" North Feed Conveyor #13			
		48" Reversible Distributing Conveyor #12 to Bin 401, Bin 402, Bin 304, Bin 305, Bin 302&303, Bin 306&307, Bin 301, and Bin 308			
		Bin 401 to 36" Apron Conveyor #20			
		36" Apron Conveyor #20 to Weigh Hopper			
		Bin 402 to 36" Apron Conveyor #21			
		36" Apron Conveyor #21 to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 30" Reversible Conveyor #1			
		Bin 301 to 30" Apron Feeder			
		30" Apron Feeder to Weigh Hopper			
		Bin 308 to 30" Apron Feeder			
		30" Apron Feeder to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 30" Reversible Conveyor #1			
		30" Reversible Conveyor #1 to 36" Conveyor #2a			
		36" Conveyor #2a to 36" Conveyor #3a			
		36" Conveyor #3a to Weigh Hopper 8F			
		Weigh Hopper 8F to Skip Hoist			
		Skip Hoist to 8F Tram Cars			
002-07	Fugitives from Building	8F Tram Cars to Furnace 14 Bins, Furnace 15 Bins, and Furnace 16 Bins	Installed 7/1/1935		Building Control
		Furnace 14 Bins to Furnace 14			
		Furnace 15 Bins to Furnace 15			
		Furnace 16 Bins to Furnace 16			
		30" Reversible Conveyor #1 to 36" Conveyor #2			
		36" Conveyor #2 to Weigh Hopper 3F			
		Bin 309 to 30" Apron Conveyor #23			
		30" Apron Conveyor #23 to Weigh Hopper			
		Weigh Hopper to 30" Belt Feeder			
		30" Belt Feeder to 36" Conveyor #3			
		Bin 310 to Vibrating Feeder			
		Vibrating Feeder to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 36" Conveyor #3			

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
002-07 (cont'd)	Fugitives from Building	Bin 311 to 30" Apron Conveyor #22	Installed 7/1/1935		Building Control
		30" Apron Conveyor #22 to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 36" Conveyor #3			
		Bin 311 to 30" Apron Conveyor #22			
		Apron Conveyor #22 to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 36" Conveyor #3			
		36" Conveyor #3 to Weigh Hopper 3 3F			
		36" North Feed Conveyor #13 to 36"Reversible Conveyor #14			
		36" Reversible Conveyor #14 to Bin 312&313, Bin 314, Bin 315&316 and 317&318, Bin 319&320, and Reject Chute			
		Bin 312&313 to 36" Apron Conveyor #312&313			
		36" Apron Conveyor #312&313 to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 42" North Batching Conveyor			
		Bin 314 to 36" Apron Reversible Conveyor #314 and Scale Car			
		36 "Apron Reversible Conveyor #314 to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 42" North Batching Conveyor			
		Bin 315&316 and 317&318 to Vibrating Feeder and Scale Car			
		Vibrating Feeder to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 42" North Batching Conveyor			
		Bin 319&320 to Vibrating Feeder and Scale Car			
		Vibrating Feeder to Weigh Hopper			
		Weigh Hopper to Vibrating Feeder			
		Vibrating Feeder to 42" North Batching Conveyor			
		42" North Batching Conveyor to 36" North Cross Conveyor			
		36" North Cross Conveyor to 36" North 3F Weigh Hopper Conveyor			
		36" North 3F Weigh Hopper Conveyor to Weigh Hopper 3F			

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
002-07 (cont'd)	Fugitives from Building	Scale Car to Weigh Hopper 3F and Furnace 9 Skip Hoist	Installed 7/1/1935		Building Control
		Weigh Hopper 3F to Skip Hoist			
		Skip Hoist to 3F Tram Cars			
		3F Tram Cars to Furnace 3 Bins, Furnace 6 Bins, and Furnace 7 Bins			
		Furnace 3 Bins to Furnace 3 Conveyors and Furnace 3			
		Furnace 3 Conveyors to Furnace 3			
		Furnace 6 Bins to Furnace 6			
		Furnace 7 Bins to Furnace 7			
		Furnace 9 Skip Hoist to Furnace 9 Tram Car			
		Furnace 9 Tram Car to Furnace 9 Bins			
		Furnace 9 Bins to Furnace 9			
Submerged Electric Arc Furnace Number 3 (Furnace 3) in Building 5 Group 003					
003-01	Stacks 009 & Fugitives from Building	Submerged Electric Arc Furnace and Tapping to Air Heat Exchanger	7/1/1972	*Nominal Capacity:* 2.6 tons/hr	Baghouse / Building Control
006-01	Fugitive	Cooling Tower from Furnace 3	7/1/1973	*Design Capacity:* 900 gal/min	None
003-01	Stack 009	from Furnace 3 and Tapping to Air Heat Exchanger to Baghouse 3 (0005)	N/A	N/A	Baghouse 3 (0005)
003-01	Fugitives from Building	Tapping from Furnace 3, Metal Pouring (003-09), Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.9 tons/hr	Work Practices/ Building Control
003-09	Fugitives from Building	Metal Pouring (003-09), Tapping, Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.9 tons/hr	Work Practices/ Building Control
005-01	Fugitives from Building	Slag Handling (005-01), Metal Pouring (003-09), Slag Sales	N/A	*Nominal Capacity:* 0.3 ton/hr	Work Practices/ Building Control
0005	Stack 009	Air Heat Exchanger to Baghouse 3 (0005) to Baghouse Dust Handling (004-09) Min Collection Eff: 97%	Installed 7/1/1974 Modified 10/1/99 Reverse Air	*Design Capacity:* 532,696 CFM @ 280 °F	NOTE: Fume goes to Alloy Microsilica Facility and /or Offsite Landfill
004-09	Fugitive	Baghouse 3 (0005) Dust Handling to Silo 7 to Slurry Truck (0021) and Fumes to Sales	7/1/1974	*Nominal Capacity:* 1.25 tons/hr	None
004-09 S7	Fugitive	Silo 7	7/1/1974	*Design Capacity:* 8,000 ft^3	Baghouse
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
004-09 S14	Stack 016; Stack 017	Silo 14 w/ Densification	Modified 8/1/2006	*Design Capacity:* 9,800 ft^3	Baghouse 14 (0012) & 15 (0013)

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
Apollo 13	Stack 016; Stack 017	Apollo 13 Bagging Unit	8/1/2006	*Nominal Capacity:* 4 tons/hr	Baghouse 14 (0012) & 15 (0013)
Bulk Truck Loading	Stack 016; Stack 017	Bulk Truck Loading	8/1/2006	N/A	Baghouse 14 (0012) & 15 (0013)
Submerged Electric Arc Furnace Number 6 (Furnace 6) (Building 5) Group 003					
003-03	Stacks 010, 011, 012, & Fugitives from Building	Submerged Electric Arc Furnace 6 to Tapping	7/1/1935	*Nominal Capacity:* 2.0 tons/hr	Baghouses 5 - (0006), 6 - (0007), 7A - (0008)
003-03	Stacks 010, 011, 012, & Fugitives from Building	Tapping from Furnace 6, Metal Pouring (003-09), and Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices/ Building Control
003-09	Fugitives from Building	Metal Pouring (003-09), Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices / Building Control
005-01	Fugitive & Fugitives from Building	Slag Handling (003-09), Metal Pouring (005-01), Slag Sales	N/A	*Nominal Capacity:* 0.2 ton/hr	Work Practices/ Building Control
004-09	Fugitive	Baghouses 5 (0006), 6 (0007), 7A (0008) Dust Handling to Silo 7, Slurry Truck (0021) and Fume to Sales	7/1/1964	*Nominal Capacity:* 2.25 tons/hr	None
004-09 S7	Fugitive	Silo 7	7/1/1974	*Design Capacity:* 8,000 ft^3	Baghouse
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
Submerged Electric Arc Furnace Number 7 (Furnace 7) (Building 5) Group 003					
003-04	Stacks 010, 011, 012, & Fugitives from Building	Submerged Electric Arc Furnace 7 to Tapping	7/1/1935	*Nominal Capacity:* 2.0 tons/hr	Baghouses 5 - (0006), 6 - (0007), 7A - (0008)
003-04	Stacks 010, 011, 012, & Fugitives from Building	Tapping from Furnace 7, Metal Pouring (003-09), and Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices/ Building Control
003-09	Fugitives from Building	Metal Pouring (003-09), Tapping, Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices/ Building Control
005-01	Fugitive & Fugitives from Building	Slag Handling (005-01), Metal Pouring (003-09), Slag Sales	N/A	*Nominal Capacity:* 0.2 ton/hr	Work Practices/ Building Control

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
Baghouses for Submerged Electric Arc Furnace Numbers 6 & 7 – Group 003					
0006	Stack 010	Baghouse 5 (0006) to Baghouse Dust Handling (004-09) Min Collection Eff: 97%	Installed 7/1/1964 Modified 7/1/99 Reverse Air	*Design Capacity:* 320,000 CFM @ 360 °F	NOTE: Fume goes to Alloy Microsilica Facility and /or Offsite Landfill
0007	Stack 011	Baghouse 6 (0007) to Baghouse Dust Handling (004-09) Min Collection Eff: 97%	Installed 7/1/1973 Modified 4/1/99 Reverse Air	*Design Capacity:* 320,000 CFM @ 360 °F	NOTE: Fume goes to Alloy Microsilica Facility and /or Offsite Landfill
0008	Stack 012	Baghouse 7A (0008) to Baghouse Dust Handling (004-09) Min Collection Eff: 97%	Installed 7/1/1970 Modified 4/1/2000 Reverse Air	*Design Capacity:* 320,000 CFM @ 360 °F	NOTE: Fume goes to Alloy Microsilica Facility and /or Offsite Landfill
Submerged Electric Arc Furnace Number 9 (Furnace 9) (Building 15) Group 003					
003-05	Stacks 015, 029, & Fugitives from Building	Submerged Electric Arc Furnace 9 to Tapping	7/1/1971	*Nominal Capacity:* 2.6 tons/hr	Control Device with minimum of 99% PM control efficiency
003-05	Stacks 015, 029, and Fugitives from Building	Tapping from Furnace 9 to Metal Pouring (003-09), and Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.6 tons/hr	Work Practices/ Building Control
003-09	Fugitives from Building	Metal Pouring (003-09), Tapping, Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.6 tons/hr	Work Practices/ Building Control
005-01	Fugitive & Fugitives from Building	Slag Handling (005-01), Metal Pouring 9003-09), Slag Sales	N/A	*Nominal Capacity:* 0.3 ton/hr	Work Practices
004-09	Fugitive	Dust Handling to Slurry Truck (0021) and Fume to Sales	7/1/1972	*Nominal Capacity:* 1.5 tons/hr	None
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
Submerged Electric Arc Furnace Number 14 (Furnace 14) (Building 19) Group 003					
003-06	Stacks 016, 017, & Fugitives from Building	Submerged Electric Arc Furnace 14 and Tapping to Air Heat Exchanger(s)	*Installed 7/1/1941* Modified 11/1/02 New Electrode System Design	*Nominal Capacity:* 2.0 tons/hr	Baghouse 14 (0012) and 15 (0013)
003-06	Stack 016	Furnace 14 and Tapping to Air Heat Exchanger to Baghouse 0014 (0012)	N/A	N/A	Baghouse 14 (0012)
003-06	Stack 017	Furnace 14 and Tapping to Air Heat Exchanger to Baghouse 14 (0013)	N/A	N/A	Baghouse 15 (0013)
003-06	Stacks 016 and/or 017, & Fugitives from Building	Tapping from Furnace 14 to Metal Pouring (003-09) and Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices/ Building Control
003-09	Fugitives from Building	Metal Pouring (003-09), Tapping, Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices/ Building Control
005-01	Fugitive & Fugitives from Building	Slag Handling (005-01), Metal Pouring (003-09), Slag Sales	N/A	*Nominal Capacity:* 0.2 ton/hr	Work Practices
004-09	Fugitive	Baghouse 14 (0012) and/or Baghouse 15 (0013) Dust Handling to Silo 14 to Slurry Truck (0021) and Silo 7 to Fume to Sales	N/A	*Nominal Capacity:* 0.75 ton/hr each	None
004-09 S14	Stack 016; Stack 017	Silo 14 with Densification	7/1/1974	*Design Capacity:* 9,800 ft^3	Baghouse 14 (0012) & 15 (0013)
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
Apollo 13	Stack 016; Stack 017	Apollo 13 Bagging Unit	8/1/2006	*Nominal Capacity:* 4.0 tons/hr	Baghouse 14 (0012) & 15 (0013)
Bulk Truck Loading	Stack 016; Stack 017	Bulk Truck Loading	8/1/2006	NA	Baghouse 14 (0012) & 15 (0013)
Submerged Electric Arc Furnace Number 15 (Furnace 15) (Building 19) Group 003					
003-07	Stacks 016, 017, & Fugitives from Building	Submerged Electric Arc Furnace 15 to Tapping and Air Exchanger(s)	Installed 7/1/1941 Modified 7/15/1998 Increased Capacity	*Allowable Limits:* 18,000 TPY *Nominal Capacity:* 2.0 tons/hr	Baghouse 14 (0012) & 15 (0013)
003-06	Stack 016	Furnace 15 and Tapping to Air Heat Exchanger to Baghouse 14 (0012)	N/A	*Nominal Capacity:* 2.0 tons/hr	Baghouse 14 (0012)
003-06	Stack 017	Furnace 15 and Tapping to Air Heat Exchanger to Baghouse 15 (0013)	N/A	N/A	Baghouse 15 (0013)

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
003-07	Stacks 016 and/or 017, & Fugitives from Building	Tapping Furnace 15, Metal Pouring (003-09), Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices/ Building Control
003-09	Fugitives from Building	Metal Pouring (003-09), Tapping, Slag Handling (005-01)	N/A	*Nominal Capacity:* 2.0 tons/hr	Work Practices/ Building Control
005-01	Fugitive & Fugitives from Building	Slag Handling (005-01), Metal Pouring (003-09), Slag Sales	N/A	*Nominal Capacity:* 0.2 ton/hr	Work Practices/ Building Control
004-09	Fugitives	Baghouse 14 (0012) and/or Baghouse 15 (0013) Dust Handling to Silo 14 to Slurry Truck (0021) and Silo 7 to Fume to Sales	N/A	*Nominal Capacity:* 0.75 ton/hr each	None
004-09 S14	Stack 016; Stack 017	Silo 14 with Densification	7/1/1974	*Design Capacity:* 9,800 ft^3	Baghouse 14 (0012) & 15 (0013)
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
Apollo 13	Stack 016; Stack 017	Apollo 13 Bagging Unit	8/1/2006	*Nominal Capacity*: 4.0 tons/hr	Baghouse 14 (0012) & 15 (0013)
Bulk Truck Loading	Stack 016; Stack 017	Bulk Truck Loading	8/1/2006	N/A	Baghouse 14 (0012) & 15 (0013)
Submerged Electric Arc Furnace Number 16 (Furnace 16) (Building 19) Group 003					
003-08	Stacks 016, 017, & Fugitives from Building	Submerged Electric Arc Furnace 16 to Tapping and Air Exchanger(s)	7/1/1941	*Nominal Capacity:* 0.6 tons/hr	Baghouse 14 (0012) & 15 (0013)
003-06	Stack 017	Air Heat Exchanger to Baghouse 15 (0013)	N/A	N/A	Baghouse 15 (0013)
003-08	Stacks 016 and/or 017, & Fugitives from Building	Tapping Furnace 16, Metal Pouring (003-090), Slag Handling (005-01)	N/A	*Nominal Capacity:* 0.6 ton/hr	Work Practices/ Building Control
003-09	Fugitives from Building	Metal Pouring (003-09), Tapping, Slag Handling (005-01)	N/A	*Nominal Capacity:* 0.6 ton/hr	Work Practices/ Building Control
005-01	Fugitives from Building	Slag Handling (005-01), Metal Pouring (003-09), Slag Sales	N/A	*Nominal Capacity:* 0.06 ton/hr	Work Practices/ Building Control
004-09	Fugitive	Baghouse 14 (0012) and/or Baghouse 15 (0013) Dust Handling to Silo 14 to Slurry Truck (0021) and Silo 7 to Fumes to Sales	N/A	*Nominal Capacity:* 0.75 ton/hr each	None
004-09 S14	Fugitive	Silo 14	7/1/1974	*Design Capacity:* 9,800 ft^3	Baghouse

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
Baghouses for Submerged Electric Arc Furnaces 14, 15, 16 - Group 003					
0012	Stack 016	Heat Exchanger to Baghouse 14 (0012) to Baghouse Dust Handling (004-09) Min Collection Eff: 97%	Installed 7/1/1974 Modified 7/1/98	*Design Capacity:* 451,454 CFM @ 360 °F	NOTE: Fume goes to Alloy Microsilica Facility and /or Offsite Landfill
0013	Stack 017	Heat Exchanger to Baghouse 15 (0013) to Baghouse Dust Handling (004-09) Min Collection Eff: 97%	Installed 7/1/1974 Modified 4/1/98	*Design Capacity:* 451,454 CFM @ 360 °F	NOTE: Fume goes to Alloy Microsilica Facility and /or Offsite Landfill
004-09	Fugitive	Baghouse 14 (0012) and/or Baghouse15 (0013) Dust Handling (004-09) to Silo 14 to Slurry Truck (0021) and Silo 7 to Fume to Sales	N/A	*Nominal Capacity:* 0.75 ton/hr each	None
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
C7P Impactor and Baghouse Dust Handling (Building 15A) Group 004					
004	Fugitive	Product Storage to Product Loading (004-08)	N/A	N/A	None
004-02	Stack 022 and Fugitives from Building	C7P Impactor (004-02), Bin and Conveyor System, and Baghouse Dust Handling (004-09) consists of: System Manufacturer: Pennsylvania Impactor Feed Bin to Vibratory Feeder Vibratory Feeder To Elevator Elevator to Screen Box 1 Screen Box 1 to Screen Box 2 Screen Box 2 to Impactor Hammer Mill and Product Storage Piles (004- 10) Impactor Hammer Mill to Elevator Model No.: C-5-35 Bin 1 to Conveyor 1 Bin 2 to Conveyor 2 Conveyor 1 and Conveyor 2 to Conveyor 3 Conveyor 3 to Product Loading (004-08)	7/1/1941	*Design Capacity:* 1.5 tons/hr	Baghouse
004-10	Fugitives from Building	Product Storage Piles to Product Loading (004-08)	7/1/1941	N/A	Building Control

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
004-08	Fugitive and Fugitives from Building	Product Loading	7/1/1941	N/A	Building Control
0017	Stack 022	C7P Impactor Baghouse (0017) to Baghouse Dust Handling (004-09); Buildings 60 and 61 Min Collection Eff: 99% Low Temperature	7/1/1991	*Design Capacity:* 12,000 CMF @ 90 °F	NOTE: Dust Packaged for Sales and/or Offsite Landfill
004-09	Fugitive	Dust Collector C7P Impactor Dust Handling (004-09) to Slurry Truck (0021) and Dust to Sales	N/A	N/A	None
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
C7P Multi-Stage Crusher (Building 15A) Group 004					
004-03	Stacks 023 and Fugitives from Building	C7P Multi-Stage Crusher consists of: Feed Hooper to Armored Feeder Model No.: C-5-35 Armored Feeder to Belt Conveyor Belt Conveyor to Jaw Crusher Jaw Crusher to Vibratory Feeder 1 Manufacturer: Traylor Type: HB 30" X 42" Vibratory Feeder 1 to Pocket Belt Pocket Belt to Chute	Installed 7/1/1936 Modified 10/1/2003 Replaced Vibratory Feeder with Conveyor	*Design Capacity:* 50 tons/hr	Baghouse/ Building Control
004-03	Stacks 024 and Fugitives from Building	Chute from Pocket Belt to 48" Crusher 48" Crusher to 2 X 10 Belt 2 X 10 Belt to #1 Bucket Elevator #1 Bucket Elevator to #1 Screen Box #1 Screen Box to Floor Skips and to 36" Crusher and to Conveyor Floor Skips 36" Crusher to Recycle Belt Recycle Belt to #3 Bucket Elevator #3 Bucket Elevator to #2 Screen #2 Screen to Floor Skips and Car Loading Belt Floor Skips Conveyor to Flop Gate Flop Gate to Floor Skips and Car Loading Belt Floor Skips Car Loading Belt to Product Loading (004-08)and Product Storage Piles (004-10)	N/A	N/A	Baghouse/ Building Control

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
004-08	Stacks 024, Fugitives, and Fugitives from Building	Product Loading	N/A	N/A	Baghouse/ Building Control
004-10	Fugitive and Fugitives from Building	Product Storage Piles to Product Loading (004-08) and C7P Fines Screener NOTE: C7P Fines Screener is a portable conveyor used in C7P beginning in 2002 for product loading into trucks.	N/A	N/A	Building Control for Inside Product Storage and Loading
0015	Stack 023	C7P Mainline Baghouse (0015) to Baghouse Dust Handling (004-09) Min Collection Eff: 99% Low Temperature	7/1/1968	*Design Capacity:* 46,000 CFM @ 90 °F	NOTE: Dust Packaged for Sales and/or Offsite Landfill
0016	Stack 024	C7P Load Hopper Baghouse (0016) to Baghouse Dust Handling (004-09) Min Collection Eff: 99% Low Temperature	7/1/1994	*Design Capacity:* 30,000 CFM @ 90 °F	NOTE: Dust Packaged for Sales and/or Offsite Landfill
004-09	Fugitives	Baghouse C7P Multistage Crusher to Dust Handling to Slurry Truck (0021) and Dust to Sales	N/A	N/A	None
0021	Fugitives	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
C6F Sizing and Cleaning (Building 20) Group 004					
004	Stack 021	Product Storage to Product Loading	N/A	N/A	Building Control
004-04	Stacks 008 and Fugitives from Building	C6F Sizing and Cleaning consists of: Manufacturer: Eliptex and Hewitt- Robins Feed Bin to Conveyor Conveyor to "A" Table "A" Table to "C" Table Model No.: 36-188 "B" Table to Product loading (004-08) Model No.: 228 "C" Table to Table "B" Model No.: 176	7/1/1939	*Design Capacity:* 12.5 tons/hr	Baghouse/ Building Control
004-08	Fugitives from Building	Product Loading	N/A	N/A	Building Control
0014	Stack 008	Baghouse 34 (0014) to Baghouse Dust Handling (004-09) (See Section 002-06 for Description)	7/1/1972	*Design Capacity:* 99,360 CFM @ 90 °F	Baghouse
004-09	Fugitive	Baghouse 34 (0014) to Dust Handling to Slurry Truck (0021) and Dust to Sales	N/A	N/A	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
0021	Fugitive	Slurry Truck	N/A	N/A	Slurry Truck Misc. Control Device
C3P Multistage Crusher (Building 5A) Group 004					
004	Fugitives from Building	Product Storage to Dump Hopper with Vibratory Feeder and Fines or Product Loading (004-08)	N/A	N/A	Building Control
004-05	Stacks 025, Fugitive and Fugitives from Building	C3P Multistage Crusher consists of: Dump Hopper with Vibratory Feeder to Belt Conveyor 1 Belt Conveyor 1 to 36" Jaw Crusher 36" Jaw Crusher to Belt Conveyor 2 Belt Conveyor 2 to Screen Box Screen Box to 36" Gyro Crusher and Fines 1 Loading Station (004-08) 36" Gyratory Crusher to Belt Conveyor 3 and Conveyor 4 Conveyor 4 to Bin 1 and Bin 2 Bin 1 and Bin 2 to Fines and Product Loading (004-08) Belt Conveyor 3 to Belt Conveyor 2 (Recycle)	Installed 7/1/1945 Modified in 2002 Bin Storage/ Conveyor / Product Loading	*Design Capacity:* 50 tons/hr *Design Capacity:* Bins 1&2: 100 ton Capacity	Baghouse
0018A	Stack 025A	C3P Baghouse Control Eff.: 99.9%	2008	60,000 CFM	
004-08	Fugitive	Fines or Product Loading	N/A	N/A	Building Control
C3P Drum Packing Station (Building 5A) Group 004					
004	Fugitives from Building	Product Storage to Vibratory Feeder and Product Loading (004-08)	N/A	N/A	Building Control
004-06	Stacks 025 and Fugitives from Building	C3P Drum Packing Station consists of: Dump Hopper with Vibratory Feeder to Chute Chute to Product Loading (004-08)	7/1/1932	*Design Capacity:* 5 tons/hr	Baghouse
004-08	Fugitives from Building	Product Loading		N/A	
0018A	Stack 025A	C3P Baghouse (Refer to Emission Unit ID 004-05)	2008		
C3P 4 x 20 Crusher (Building 5A) Group 004					
004	Fugitives from Building	Product Storage to 4 X 20 Crusher and Product Loading (004-08)	N/A	N/A	Building Control
004-07	Stacks 025 and Fugitives from Building	C3P 4 X 20 Crusher consists of: 4 X 20 Crusher to Screen Box Screen Box to Product loading (004-08)	7/1/1943	*Design Capacity:* 1.5 tons/hr	Baghouse

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
004-08	Fugitives from Building	Product Loading	N/A	N/A	Building Control
0018A	Stack 025A	C3P Baghouse (Refer to Emission Unit ID 004-05)	2008		N/A
Stockpiles, and Roadways, Group 005					
005-01	Fugitive	Slag Handling to Slag Sales – Remelts Stockpiles from Furnace Tapping/Casting Processes	N/A	N/A	None
005-02	Fugitive	Plant Roadways	N/A	N/A	Sweeper Trucks
Miscellaneous - Group 006					
006-01	Fugitives	Furnace 3 Cooling Tower (Refer to Section 003-01)	7/1/1973	*Design Capacity:* 90 gal/min	None
006-02	Fugitives from Building	C3F Ladle Lining Pit Dust Collector for C3F Ladle Lining Type: Cyclone Cleaning: Shaker mechanism into a removable canister.	3/5/1996	*Design Capacity:* 1.5 tons/hr	Canister Dust Collector/ Building Control
006-03	Fugitives from Building	Ladle Dig-Out	12/31/1992	N/A	Building Control
006-04	Cyclone Stack	Lab. Herzog Sample Prep. (Bldg 5B) Manufacturer: Herzog	7/1/1990	N/A	Cyclone
006-05	Fugitives from Building	Sample Prep. Crushing	7/1/1940	N/A	None
006-06	Fugitives from Building	Lance Pipes	N/A	N/A	None
006-07	Fugitives from Building	Furnace 3 Ladle Preheater	1970's	*Nominal Capacity:* 4 MM Btu/hr	None
006-08	Fugitives from Building	Furnace 6 & 7 Ladle Preheater	1970's Replaced 1995	*Nominal Capacity:* 6 MM Btu/hr	None
006-04	0019 Stack	Lab Herzog Cyclone Type: Simple Feed Method: Tangential Number of Units: 1	7/1/1990	N/A	N/A
006-09	Fugitives from Building	Furnaces 14&15 Ladle Preheater Manufacturer: Shelter and Brink Model: 94763	1970's Replaced 1994	*Nominal Capacity:* 6 MM Btu/hr	None
006	Fugitives from Building	Carbon Paste Pan Mill	1950	*Nominal Capacity* 240 TPY	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed, *Modified, Replaced*	Design Capacity *or Nominal Capacity or Allowable Limits*	Control Device
Wet Slurry Microsilica Facility (Building 155) Group 006					
004-09 S7	Fugitive	Silo Number 7	7/1/1974	*Design Capacity:* 8,000 ft^3	Baghouse
MS-1	MS-1C	Wet Slurry Mixing Facility is in a Building that is Adjacent to Silo No. 7 Design Water Flow: 482 gallons per hour	10/1/1983	*Allowable Limits:* 10,000 TPY	Baghouse and Water Spray
MS-1C	MS-1E	Backup Baghouse Dust Control Device Dust is Ducted to Silo 7 Min Collection Eff: 99%	10/1/1983	*Design Capacity:* 2,000 CFM @ 300 °F	N/A
MS3	None	Microsilica Slurry Loading Building	8/15/1985	*Design Capacity:* 10,000 TPY	None
Dry Mixing Facility (Building 156) Group 006					
004-09 (S7)	Fugitive	Silo Number 7	7/1/1974	*Design Capacity:* 8,000 ft^3	Baghouse
DM-1	DM-1C and Fugitive	Dry Microsilica Rotary Classifier	9/12/1989	*Allowable Limits:* 30,000 TPY	Baghouse
DM-1C	DM-1E and Fugitive	Dry Microsilica Rotary Classifier – Baghouse Min Collection Eff: 99%	9/12/1989	*Design Capacity:* 7,500 CFM @ 70 °F	Baghouse
DM-2	DM-2C and Fugitive	Dry Microsilica Building Central	9/12/1989	*Design Capacity:* 30,000 TPY	Baghouse
DM-2C	DM-2E	Dry Microsilica Building Central Baghouse Filter for Bagging Operation and Control of Dust within Building an for Bulk loading Operations Min Collection Eff: 99% Pneumatic Conveyor to Air Densification Silo	9/12/1989	*Design Capacity:* 4,200 CFM @ 70 °F	Baghouse
DS-1	DS-1C	Air Densification Silo Number 1	9/12/1989	*Design Capacity:* 15,000 TPY	Baghouse
DS-1C	DS-1E	Air Densification Silo Number 1 Vent (Baghouse) – Microsilica is Densified by Air Turbulence Min Collection Eff: 99%	9/12/1989	*Design Capacity:* 950 CFM @ 70 °F	Baghouse
DS-2	DS-2C	Air Densification Silo Number 2	9/15/1993	*Design Capacity:* 15,000 TPY	Baghouse
DS-2C	DS-2E	Air Densification Silo Number 2 Vent (Baghouse) – Microsilica is Densified by Air Turbulence Min Collection Eff: 99%	9/15/1993	*Design Capacity:* 950 CFM @ 70 °F	Baghouse
DM-2C	DM-2E and Fugitives from Building	Air Densification Silos to Paper Bagging Operation or Super-Sack Station via Pneumatic Conveyor or Bulk Loading to Railcars or Trucks	9/12/1989	*Design Capacity:* 30,000 TPY	Baghouse

EAF = Electric Arc Furnace

Alloy Facility = WVA Manufacturing, LLC.

Virtual Stacks (Fugitives) Listing

Stack ID Number	Virtual Stack Description
007	Building 10/10A Fugitives
018	Building 5/5A Fugitives
019	Building 15/15A Fugitives
020	Building 19/19A Fugitives
021	Building 20/20A Fugitives
026	Product Handling Fugitives
027	Miscellaneous Fugitives

Tanks Listing

Source ID	Emission Point ID	Equipment Description	Design Capacity	Year Installed
T1	T1	Gasoline Tank Tank Type: Underground - Horizontal, fiberglass reinforced plastic with vapor recovery Roof Type: Fixed Stores: Gasoline	4,000 gal	1990
T2	T2	Diesel Tank (Engine House) Tank Type: Aboveground – Horizontal Roof Type: Fixed Stores: Diesel	6,000 gal	2003
T3	T3	Diesel Tank (Mix House) Tank Type: Aboveground - Horizontal Roof Type: Fixed Stores: Diesel	550 gal	1995
T6	T6	Tar Tank Tank Type: Aboveground – Horizontal with heater Roof Type: Fixed Stores: Tar	4,500 gal	1969

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R14-0017C	June 14, 2012
R13-2052	May 21, 2003

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 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr *or* lb/hr	Pounds per Hour
LDAR	Leak Detection and Repair
m	Thousand
MACT	Maximum Achievable Control Technology
mm	Million
mmBtu/hr	Million British Thermal Units per Hour
mmft^3/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour
NA *or* N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10μm in diameter
pph	Pounds per Hour
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. 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; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. 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.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. 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.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably 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.
[45CSR§30-5.7.a.]

2.17.2. 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 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. 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. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, 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, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. 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 modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required 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.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. 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.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof. **[45CSR§30-5.6.a.]**

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. 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 defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding. **[45CSR§30-5.3.e.3.B. and 45CSR38]**

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect. **[45CSR§30-5.1.e.]**

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege. **[45CSR§30-5.1.f.4]**

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person 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 or allow 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.
[40 C.F.R. §61.145(b) and 45CSR34]

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. **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 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. 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 45CSR§7- 3.2 (See Section 3.1.10), 3.3, 3.4, 3.5, 3.6, and 3.7 (See Section 3.1.12).
[45CSR§7-3.1, 45CSR13, R13-2052, B.2, 45CSR14, R14-0017, B.2]

3.1.10. The provisions of Section 3.1.9 [45CSR§7-3.1] 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]

3.1.11. No person shall cause, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to Section 3.1.14 [45CSR§7-5.1] is required to have a full enclosure and be equipped with a particulate matter control device. The loading and unloading of the above silos are not subject to standards of 45CSR§7-3.7, but are subject to the standard of 45CSR§7-5.1 to minimize emissions of fugitive particulate matter.
[45CSR§7-3.7, Group 006 (Silo 7, Silo 14, DS-1 and DS-2)]

3.1.12. 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 of 45CSR7. Following table list the equipment with their allowable stack emission rates.

Sources	Allowable Stack Emission Rate LB PM/hr
C7P Impactor 004-02	3.4
C7P Multi-Stage Crusher 004-03	33.0
C6F Sizing and Cleaning 004-04	19.0
C3P Multi-Stage Crusher 004-05	33.0
C3P Drum Packing Station 004-06	10.0
Silo 7	16
Silo 14	16
Dry Microsilica Facility	
DM-1	6.0
DM-2	6.0
DS-1	37
DS-2	37

Compliance with the PM emission limits for DS-1, DS-2, DM-1 and DM-2 in this requirement is demonstrated, if compliance with PM emission limits in requirement 6.1.4 is demonstrated.

[45CSR§7-4.1, 45CSR13, R13-2052, B.2, 45CSR14, R14-0017, B.2, Groups 002, 003, 004, and 006]

3.1.13. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
[45CSR§7-4.12]

3.1.14. No person shall cause, suffer, allow, or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system to minimize the emissions of fugitive particulate matter. To minimize means that a particulate capture or suppression system shall be installed to ensure the lowest fugitive particulate emissions reasonably achievable.
[45CSR§7-5.1, 45CSR13, R13-2052, B.2, 45CSR14, R14-0017, B.2]

3.1.15. The owner or operator of a plant shall maintain dust control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary dust suppressants shall be applied in relation to stockpiling and general material handling to prevent dust generation and atmospheric entrainment.
[45CSR§7-5.2, 45CSR13, R13-2052, B.2, 45CSR14, R14-0017, B.2]

3.1.16. The provisions of Sections 3.1.19, 3.1.10, and 3.1.14 [45CSR§§7-3.1, 3.2, and 5.1] shall not apply to particulate matter emitted from the operation of a ferroalloy electric submerged arc furnace in existence prior to June 1, 1993 during blowing taphole events, poling, and oxygen lancing operations. Poling emissions shall not exceed five (5) minutes in duration during any poling operation.
[45CSR§7-5.3]

3.1.17. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) 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.
[45CSR§7-9.1]

3.1.18. Maintenance operations (as defined in 45CSR7) shall be exempt from the provisions of 45CSR§7-4 provided that at all times the owner or operator shall conduct maintenance operations in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.
[45CSR§7-10.3]

3.1.19. An owner or operator may apply for an alternative visible emission standard for start-up and shutdown periods, on a case-by-case basis, by filing a written petition with the Director. The Director may approve an alternative visible emission standard for start-ups and shutdowns to the visible emission standard required under 45CSR§7-3. The petition shall include a demonstration satisfactory to the Director:

a. That it is technologically or economically infeasible to comply with 45CSR§7-3;

b. That establishes the need for approval of a start-up or shutdown plan based upon information including, but not limited to, monitoring results, opacity observations, operating procedures and source inspections.

c. That the particulate matter weight emission standards under 45CSR§7-4 are being met, as determined in accordance with 45CSR7A - "Compliance Test Procedures For 45CSR7 - ' To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations'"; and

d. That during periods of start-ups and shutdowns the owner or operator shall, to the extent practicable, maintain and operate any manufacturing process including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.

[45CSR§7-10.4]

3.2. Monitoring Requirements

3.2.1. The permittee shall conduct monitoring/recordkeeping/reporting as follows. [Not required for open stockpiles and haulroads]

a. The permittee shall perform monthly Method 22 visible emission observations for particulate matter emission activities for the emission sources identified as Groups 002, 004, 005, and 006 in the Emission Unit Table, Section 1.1. These visible emission observations shall be conducted for 6 minute time intervals to determine if any of the subject emission points have visible emissions and if so, determine the opacity of the emissions. If any of the subject emission points have visible emissions exceeding the regulatory limit of twenty percent (20%) opacity, then a 45CSR7A evaluation shall be conducted immediately after the violation of the regulatory limit unless the permittee can demonstrate a valid reason that the time frame should be extended. A 45CSR7A evaluation shall not be required if the condition resulting in the excess visible emissions is corrected within 24 hours and the units are operated at normal operating conditions.

b. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or 45CSR7A, whichever is appropriate. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall be maintained on site stating any maintenance or corrective actions taken as a result of the monthly observations, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.

[45CSR§30-5.1.c]

3.2.2. The permittee shall maintain instrumentation on all dust collectors for pressure drop observations. The permittee shall maintain records of the maintenance performed on each baghouse. These records shall include all maintenance work performed on each dust collector including the frequency of bag/filter change outs. Records shall state the date and time of each dust collector inspection, the inspection results, and corrective action taken, if any. Records shall be maintained on site as per Requirement 3.4.2.
[45CSR§30-5.1.c]

3.2.3. **CAM monitoring requirement**. The differential pressure drop across each of the Dust Collectors (C3P and C7P, Emission Points 023, 024, and 025A) shall be monitored at least once daily. Records shall be kept on site with entries including date and time of each reading, and readings' result. If there were more than one reading taken during one day, the readings should be averaged on a daily basis to get a daily average (one for each 24-hr period). If there was just one reading taken during one day, this reading should be considered "a daily average". A daily average pressure drop outside of the range of 3" - 6" water gauge for the C3P Baghouse and C7P Baghouse 0016, and outside of the range of 10" - 14" water gauge for the C7P Baghouse 0015 is considered an excursion.

If an excursion occurs, corrective action, if necessary, shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and recordkeeping and reporting shall be initiated. Records shall be maintained on site as per Requirement 3.4.2.

[45CSR§§30-5.1.c and 12.7, and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)][Baghouses C3P, C7P]

3.2.4. **Commencement of operation**. The permittee shall conduct the monitoring of the Multi-Stage Crushers C3P and C7P required under 40 CFR Part 64 upon issuance of this permit.
[40 CFR §§ 64.7(a) and 64.6(d); 45CSR§30-5.1.c.] [C3P, C7P]

3.2.5. **Proper Maintenance** – At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[40 CFR § 64.7(b); 45CSR§30-5.1.c.] [Baghouses C3P, C7P]

3.2.6. **Continued Operation** – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[40 CFR § 64.7(c); 45CSR§30-5.1.c] [Baghouses C3P, C7P]

3.2.7. **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 CFR § 64.7(e); 45CSR§30-5.1.c] [Baghouses C3P, C7P]

3.2.8. **Quality Improvement Plan (QIP)** – Based on the results of a determination made under 40 CFR §64.7(d)(2) (permit condition 3.4.4.b), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e). Refer to permit condition 3.5.10.b.3. for the reporting required when a QIP is implemented.
[40 CFR § 64.8; 45CSR§30-5.1.c] [Baghouses C3P, C7P]

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, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are 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.

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 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.

3. A statement of compliance or non-compliance with each permit or rule condition.

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

3.3.2. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director 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.
[45CSR§7-8.1]

3.3.3. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** 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.

[45CSR§30-5.1.c.2.A.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

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

3.4.4. **Response to Excursions or Exceedances**

a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR § 64.7(d); 45CSR§30-5.1.c] [Baghouses C3P, C7P]

3.4.5. **General recordkeeping requirements for 40 CFR Part 64 (CAM)**

The permittee shall comply with the recordkeeping requirements specified in permit conditions 3.4.1 and 3.4.2. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR §64.8 (3.2.8) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
[40 CFR § 64.9(b); 45CSR§30-5.1.c] [Baghouses C3P, C7P]

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.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31. **[45CSR§30-5.1.c.3.E.]**

3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, 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 e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

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

US EPA:

Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

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

[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. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. **[45CSR§30-8.]**

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:
DEPAirQualityReports@wv.gov

US EPA:
R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before 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. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.5.10. **General reporting requirements for 40 C.F.R. Part 64 (CAM)**

a. On and after the date specified in 40 CFR §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit CAM monitoring reports with the semi-annual monitoring report under permit condition 3.5.6. Incorporation by reference within the semi-annual monitoring report is not acceptable.

b. A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

1. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

2. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

3. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR § 64.9(a); 45CSR§30-5.1.c] [Baghouses C3P, C7P]

3.6. Compliance Plan

3.6.1. None

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

45CSR33	Acid Rain Provisions and Permits do not apply to WVA Manufacturing LLC – Alloy Facility because it is not considered a Title IV (Acid Rain) Source.
40 C.F.R. §§ 60.40 - 60.46 NSPS Subpart D	Standards of Performance for Fossil-Fuel-fired Steam Generators constructed after August 17, 1971 does not apply because no steam generating units with a heat input above 250 mmBtu/hr that were constructed, reconstructed, or modified after August 17, 1971 exist at this facility.
40 C.F.R. §§ 60.40Da - 60.52Da NSPS Subpart Da	Standards of Performance for Electric Utility Steam Generating Units does not apply because no steam generating units with a heat input above 250 mmBtu/hr that were constructed, reconstructed, or modified after September 18, 1978 exist at this facility.
40 C.F.R. §§ 60.40b - 60.49b NSPS Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units does not apply because no steam generating units with heat input > 100 mmBtu/hr which were constructed, reconstructed, or modified after 6/19/84 are in use.
40 C.F.R. §§ 60.110 - 60.113 NSPS Subpart K	Standards of Performance for Storage Vessels for Petroleum Liquids constructed or modified after June 11, 1973 and prior to May 19, 1978 does not apply because petroleum liquids are not stored in vessels with a capacity greater than 40,000 gallons.
40 C.F.R. §§ 60.110a - 60.115a NSPS Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids constructed or modified after May 18, 1978 and prior to July 23, 1984 does not apply because petroleum liquids are not stored in vessels with a capacity greater than 40,000 gallons.
40 C.F.R. §§ 60.110b - 60.117b NSPS Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 does not apply because vessels are smaller than 75 m^3.
40 C.F.R. §§ 60.250 - 60.258 NSPS Subpart Y	Standards of Performance for Coal Preparation Plants do not apply because Alloy Facility coal operation precedes the NSPS Subpart Y applicability date of October 27, 1974.
40 C.F.R. §§ 60.260 - 60.266 NSPS Subpart Z	Standards of Performance for Ferroalloy Production Facilities does not apply because Alloy Facility's modification of Electric Arc Furnace Number 15 in 1997 did not meet 50% of the cost of the furnace to be considered reconstruction for the NSPS Subpart Z.
40 C.F.R. §§ 60.380 - 60.386 NSPS Subpart LL	Standards of Performance for Metallic Mineral Processing do not apply because Alloy Facility operation proceeds the NSPS Subpart LL applicability date of August 24, 1982.
40C.F.R.§§60.670 - 60.676 NSPS Subpart OOO	These sections of 40 C.F.R. Part 60, Subpart OOO, do not apply to Alloy Facility since Alloy Facility does not crush and/or grind nonmetallic minerals.
40 C.F.R. §§ 60.730 - 60.737 NSPS Subpart UUU	Standards of Performance for Calciners and Dryers in Mineral Industries do not apply because silica and ferrosilica are not listed as a mineral processed or produced in a mineral processing plant.
40 C.F.R. §§ 63.1620 - 63.1679 NESHAP Subpart XXX	This facility does not produce either Ferromanganese or Silicomanganese products and is, therefore, not subject to any requirements under 40 CFR Part 63, Subpart XXX. However, Ferromanganese and Silicomanganese products were produced at this facility prior to 1980; therefore, this facility would be subject to the existing source requirements of this subpart if it was to produce these products in the future.
45CSR§10-5.1.	This process is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted.

45CSR17	Alloy Facility is subject to 45CSR7 which exempts it from 45CSR17, To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter, as stated in 45CSR§7-10.2.
40 C.F.R. Part 72	Acid Rain Program General Provisions does not apply to Alloy Facility because it is not considered a Title IV (Acid Rain) Source.

4.0 Boiler Requirements [Former Group 001]

4.1. Limitations and Standards

4.1.1. Boiler 4 has been permanently shut down and shall not operate in the future.
[45CSR14, R14-0017, A.24]

4.1.2. Boilers 1, 2, and 3 shall not be modified, reconstructed or operated without Alloy Facility first receiving a permit pursuant to either 45CSR13 or 45CSR14.
[45CSR14, R14-0017, A.23]

4.2. Monitoring Requirements

4.2.1. None.

4.3. Testing Requirements

4.3.1. None.

4.4. Recordkeeping Requirements

4.4.1. None.

4.5. Reporting Requirements

4.5.1. None.

4.6. Compliance Plan

4.6.1. None.

5.0 Electric Submerged Arc Furnaces Requirements [Electric Submerged Arc Furnace Numbers 3 (003-01), 6 (003-03), 7 (003-04), 9 (003-05), 14 (003-06), 15 (003-07), and 16 (003-08); Group 003; Dust Collector ID(s) (0005, 0006, 0007, 0008, 0012, 0013 and 0014), and emission point ID(s) (Stacks 009, 010, 011, 012, 015, 016, 017, 026, and 029]

5.1. Limitations and Standards

5.1.1. Particulate emissions from electric submerged arc Furnace 15 (ID 003-07) shall be controlled by venting gases from the furnace and controlled furnace tapping operations through baghouse 0012 or 0013 (emission point IDs. 016 or 017).
[45CSR14, R14-0017, A.1, Furnace 15]

5.1.2. The mass of particulate matter entering Baghouse number 0012 and/or baghouse number 0013 operated in conjunction with furnace number 15 shall be reduced by at least 99% before discharge to the atmosphere.
[45CSR14, R14-0017, A.2, Furnace 15]

5.1.3. Visible emissions from all operations directly associated with furnace number 15 (including furnace charging, refining, tapping, and ladle additions,) shall not equal or exceed 20% opacity [Section 5.1.18.a] (45CSR§7-4.7.a). In accordance with 45CSR7 and 45CSR7A, opacity observations at the baghouse discharge points, the roof monitor above furnace number 15, and from all external ductwork handling gases from furnace number 15 shall not be as dark as or darker in shade than 20% opacity. Opacity observations shall not be averaged in determining compliance with this visible emission limitation. This visible emission standard shall not be applicable during blowing taphole events, poling, oxygen lancing. Poling emissions shall not exceed five (5) minutes in duration during any poling operation.
[45CSR14, R14-0017, A.3, Furnace 15]

5.1.4. Visible emissions from casting and associated operations following removal of the ladle (s) from the tapping station (including ladle switching, slag handling and reladling) shall not exceed the 20% opacity except that visible emissions from such operations shall not equal or exceed 40% opacity for an aggregate 5 minutes in any 60 minute period.
[45CSR14, R14-0017, A.4, Furnace 15]

5.1.5. The company shall adhere to the following standard operating practices with respect to casting operations associated with Furnace number 15:

For molten slag handling operations:

1. After the pouring has been completed, the ladle is brought to a full upright position and moved to the rakeout station.

2. The bottom blowing system remains on low-flow mode through the entire rakeout and repositioning process.

3. The ladle is lowered as close to the bottom of the pit as possible and slowly turned completely over to dump any loose slag.

4. The ladle then is raised parallel to the ground and the harder-to-remove slag is "raked" out by the operator using a rakeout machine.

5. The ladle is once again lowered close to the ground and turned completely over to dump any slag remaining in the ladle.

6. The ladle is righted and moved back into the pit.

For casting operations:

1. Removal of non-process material in chills prior to pouring to chills.

2. Keep ladle lip close to chills during pouring to chills.

3. Reduce refining gas flow during pouring to chills.

4. Reduce molten metal temperature prior to pouring to chills.

[45CSR14, R14-0017, A.5, Furnace 15]

5.1.6. Testing to determine compliance with Sections 5.1.3 and 5.1.4 shall be conducted in accordance with 45CSR7A or an alternative method approved by the Director.
[45CSR14, R14-0017, A.6, Furnace 15]

5.1.7. Emissions from electric submerged arc Furnace 15 vented through emission point (Stack 016 or 017) shall not exceed the following types and amounts of pollutants:

POLLUTANT	LB/HR	TONS/YR
Lead	0.01	0.03
Particulate Matter (PM)	26.57	111.6
Particulate Matter < 10 microns (PM_{10})	22.71	95.38
Volatile Organic Compounds (VOC)	4.15	17.44
Oxides of Nitrogen (NO_x)	110.0	462.0
Sulfur Dioxide (SO_2)	175.61	737.56
Carbon Monoxide (CO)	57.88	243.11

[45CSR14, R14-0017, A.7, Furnace 15]

5.1.8. Electric submerged arc Furnace 15 shall not produce ferroalloys in excess of 18,000 tons per calendar year. Provided that in no event shall the emission limits set forth in Section 5.1.7 be exceeded. Additionally:

1. The permittee shall not combust a coal and charcoal mixture in EAF 15 with a sulfur content of greater than 2.15%.

2. EAF 15 shall not operate more than 8,400 hours per year.

[45CSR14, R14-0017, A.8, Furnace 15]

5.1.9. The Director has approved the particulate emission limitations for furnace number 15 in Sections 5.1.2, 5.1.3, and 5.1.7 based upon the presumption that number 15 furnace and all other components of the duplicate source operation including all operating electric submerged arc furnaces comply with the provisions of Section 5.1.18.a [45CSR§7-4.7.a]. Upon any finding by the Director that any part of this duplicate source operation fails to comply with the provisions of 45CSR7, Section 4.7.a, furnace number 15 shall be subject to a particulate mass emission limitation determined in accordance with 45CSR§§7- 4.1 (Section 3.1.12), 4.4 (Section 5.1.16), 4.7 (Section 5.1.18), and 4.8 (Section 5.1.19), and including 45CSR§7-4.5 (Section 5.1.17) if also applicable.
[45CSR14, R14-0017, A.9]

5.1.10. Visible emissions from the material handling and/or preparation activities identified as process area ID 026 (Stack 026) in Permit Application R13-2091 shall be minimized through the use of a slurry truck (unless the baghouse dust is being sold as a product in which case it may be loaded out either dry or wet) to collect baghouse dust and operation of a suction pipe surrounding the dust discharge pipe into the truck to collect fugitive dust. Particulate emissions of slag loading to barges shall be minimized through the use of wet suppression.
[45CSR14, R14-0017, A.10]

5.1.11. Volumetric gas flow as shown by the volumetric gas flow rate through tapping and poling hoods and gates associated with Furnaces 3, 6, 7, 14, and 15 OR fan motor power consumption of each motor of each fan serving to move gases through each of the tapping control system hoods on Furnaces 3, 6, 7, 14, and 15 shall be maintained at or above the levels established during the most recent compliance tests which demonstrated compliance with 45CSR7, and these systems shall be designed, maintained, and operated so as to conform to the capture efficiency and mass emission rates set forth in permit application number R13-2091 and R14-17, at all times that Furnaces 3, 6, 7, 14, or 15 are in operation. The tapping and poling hoods and gates shall be positioned and all tapping operations fans and hoods will be operated to assure maximum feasible capture of emissions during all tapping operations including during ladle additions, blowing tapholes, poling, oxygen lancing operations, plugging, burning, and switching ladles.
[45CSR14, R14-0017, A.11]

5.1.12. The physical configuration of all particulate capture equipment associated with Furnace 15, including hoods and ductwork and the method of operation of such equipment, including moveable hoods and gates, shall be maintained in accordance with permit application number R13-2091 and R14-17 and the most recent performance test demonstrating compliance, unless the permittee receives approval from the Director for an alternative or equivalent design or modified operation. This requirement is also applicable to Furnaces 3, 6, 7, and 14 with respect to particulate matter capture systems for tapping and associated operations.
[45CSR14, R14-0017, A.12]

5.1.13. At all times that electric submerged arc Furnace 15 is operated, the permittee shall maintain total volumetric gas flow to the baghouse(s), as shown by the volumetric gas flow rate to Baghouses 14 (0012) and 15 (0013) when servicing Furnace 15 or fan motor power consumption of each motor of each fan serving to move gases to Baghouses 14 (0012) and 15 (0013) when servicing Furnace 15, at or above the levels established during the most recent compliance tests which demonstrated compliance with 45CSR7 and this permit.
[45CSR14, R14-0017, A.13, Furnace 15]

5.1.14. The Director may require the permittee to verify any fan performance curve by monitoring necessary fan-operating parameters and determining the gas volume moved using methods 1 and 2 of 40 C.F.R. 60, Appendix A.
[45CSR14, R14-0017, A.14]

5.1.15. At all times that electric submerged arc Furnace 15 is operated, the permittee shall maintain the pressure drop across each separate compartment of Baghouses 14 (0012) and 15 (0013) when servicing Furnace 15 within the levels established during the most recent compliance test which demonstrated compliance with 45CSR7 and this permit. The average pressure drop for Baghouses 14 and 15 is between 7" and 13" water gauge.
[45CSR§30-5.1.c; 45CSR14, R14-0017, A.15, Furnace 15]

5.1.16. If a duplicate source operation that meets the requirements of 45CSR7 is expanded or if a source operation that meets the requirements of 45CSR7 is expanded to form a duplicate source operation, the total allowable emission rate for the expanded portion shall be determined by the following formula:

$$R_e = (W_e / W_{et}) R_{et}$$

Where:

R_e is the total allowable emission rate in pounds per hour for the new expanded portion of the duplicate source operation;

W_{et} is the total operating process weight rate in pounds per hour of the source operation or duplicate source operation prior to expansion plus the operating process weight rate of the new expanded portion;

R_{et} is allowable emission rate in pounds per hour found in Section 3.1.12 [45CSR§7-4.1] opposite the process weight rate, W_{et}; and

W_e is the operating process weight rate in pounds per hour for the new expanded portion.

[45CSR§7-4.4]

5.1.17. Separate stack emission rates for the new expanded portions of concern in Section 5.1.16 [45CSR§7-4.4] shall be calculated as per Section 5.1.19 [45CSR§7-4.8]. The applicable stack emission rate(s) so calculated shall be additive with the existing emission rate for any stack used to vent both an existing source operation or duplicate source operation(s) and addition(s) or portion(s) thereof.
[45CSR§7-4.5]

5.1.18. Except as noted in Section 5.1.18.a [45CSR§7- 4.7.a], the increase of the operating process weight rate of any manufacturing process source operation or duplicate source operation by the operation of new, replacement, reactivated and/or altered source operation(s) shall be considered as an expansion and the allowable emission rates from the source operation(s) which resulted in the increase shall be determined as per Section 5.1.16 [45CSR§7-4.4].

a. Type 'b' duplicate source operations whose air pollution control equipment efficiency is a minimum of ninety-nine percent (99%) by weight and whose total process weight rate is less than two hundred fifty thousand (250,000) pounds per hour shall be exempted from the requirements of Section 3.1.12 [45CSR§7-4.1] provided that smoke emitted into the open air from any such duplicate source operation is less than twenty percent (20%) opacity. If a duplicate source operation is expanded by the addition of a new source operation(s) and the total operating process weight rate is then greater than two hundred fifty thousand (250,000) pounds per hour, the allowable emission rates from the source operation which resulted in the increase above two hundred fifty thousand (250,000) pounds per hour shall be determined as per Section 5.1.16 [45CSR§7-4.4].

[45CSR§§7-4.7 and 4.7.a, Furnaces 3, 6, 7, 9, 14, 15 and 16]

5.1.19. Where more than one source operation or combinations thereof, which are part of a duplicate source operation, are vented through separate stacks, the allowable stack emission rates for the separate stacks shall be determined by the following formula:

$$R_s = R_t (W_s / W_t)$$

Where:

R_s is the allowable stack emission rate for the separate stack venting the source operation(s) in question;

R_t is the total allowable emission rate for the duplicate source operation;

W_s is the operating process weight rate for the source operation(s) vented through the separate stack; and

W_t is the total operating process weight rate for the duplicate source operation.

[45CSR§7-4.8, Furnaces 3, 6, 7, 9, 14, 15 and 16]

5.1.20. Even after the expiration of consent order CO-R14-E-2002-03 Alloy Facility shall continue to follow all requirements and work practices as outlined in section V.9 of said consent order.

a. Revise casting process to reduce the gas flow level from 9 scfm to 5 scfm used for refining, to lower generation of fugitive particular matter emissions while using the floating slag refining technique for casting process and to reduce fugitive particulate matter for casting stations and ladle rake out stations for Furnaces 3, 6, 7, 9, 14, and 15.

b. Reduce the gas flow level during the ladle rake out process, to lower the generation of fugitive particulate matter emissions during the ladle rake operation.

c. Operate improved plugging technology on Furnaces Nos. 6, 7, 14, and 15, which will allow the taphole to be plugged during periods of blowing taps.

d. Operate converted electrode system on Furnace 14 (installed 2003) to reduce the quantity of fugitive particulate matter.

[45CSR14, R14-0017, A.22 and Consent Order CO-R14-E-2002-03, V.9]

5.1.21. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-2091, R14-17, R14-0017A, R14-0017B and R14-0017C, and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR14, R14-0017, C.3]

5.1.22. Mineral acids shall not be released from any type source operation or duplicate source operation or from any air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B of 45CSR7. Following table lists the equipment with their allowable stack emission rates for hydrogen chloride (HCl) and Sulfuric Acid (H_2SO_4).

Electric Submerged Arc Furnace Number	Pollutant	Allowable Stack Emission Rate Milligrams Per Dry Cubic Meter
3	HCl Mist and/or Vapor	210
	Sulfuric Acid Mist	35
6	HCl Mist and/or Vapor	420
	Sulfuric Acid Mist	70
7	HCl Mist and/or Vapor	420
	Sulfuric Acid Mist	70
9	HCl Mist and/or Vapor	420
	Sulfuric Acid Mist	70
14	HCl Mist and/or Vapor	420
	Sulfuric Acid Mist	70

Electric Submerged Arc Furnace Number	Pollutant	Allowable Stack Emission Rate Milligrams Per Dry Cubic Meter
15	HCl Mist and/or Vapor	420
	Sulfuric Acid Mist	70
16	HCl Mist and/or Vapor	420
	Sulfuric Acid Mist	70

[45CSR§7-4.2]

5.1.23. The pertinent sections of 45CSR10 applicable to this facility include, but are not limited to, the following: No person shall cause, suffer, allow, or permit the emission into open air from any source operation an in-stack sulfur dioxide concentration exceeding 2000 ppmv by volume from existing source operations, except as provided in 45CSR§10-4.1.
[45CSR§10-4.1 and 45CSR14, R14-0017, B.3]

5.2. Monitoring Requirements

5.2.1. The permittee shall adhere to the following standard operating procedures for Baghouses 14 (0012) and 15 (0013):

1. Daily inspection of baghouse visible emissions when servicing Furnace 15.
2. Weekly confirmation that dust is being removed from the hoppers when servicing Furnace 15.
3. Monthly checks of bag cleaning mechanisms for proper functioning when servicing Furnace 15.
4. Quarterly confirmation of the physical integrity of the baghouse when servicing Furnace 15.
5. Semiannual inspection of the fans when servicing Furnace 15.

[45CSR14, R14-0017, A.16]

5.2.2. All required monitoring devices shall be checked for calibration annually in accordance with the procedures under 40 CFR 60.13(b).
[45CSR14, R14-0017, A.21]

5.2.3. The permittee shall conduct monitoring/recordkeeping/reporting for electric arc furnaces (3, 6, 7, 9, 14, 15, and 16) including tapping and pouring.

a. Initially, the Method 22 test shall be performed once every four (4) months for two years for each operating furnace for one complete tap cycle, regardless if a poling, blowing taphole or oxygen lance operation is captured, for fugitive particulate emission. In conducting the opacity observations of the shop building, the observer must limit his or her field of view to the area of the shop building roof monitor that corresponds to the placement of the affected submerged arc furnaces. If there are no visible emissions detected, then Alloy Facility may perform semi-annual visible emission readings for each operating furnace for one complete tap, regardless if a poling, blowing taphole or oxygen lance operation is captured. The tap and pouring cycle shall be defined as from the initiation of the tap until the ladle is returned to the pit and the tapping hood is closed, after the completion of the pouring. If any of the subject emission points have visible emissions equal to or exceeding twenty percent (20%) opacity, then a 45CSR7A evaluation shall be conducted immediately after the violation of the regulatory limit unless the permittee can demonstrate a valid reason that the time frame should be extended. A 45CSR7A evaluation shall not be required if the condition resulting in the excess visible emissions is corrected

within 24 hours and the units are operated at normal operating conditions. If visible emissions are detected during the semi-annual frequency, the permittee shall revert back to performing the visible emission readings every four (4) months for two years. If no visible emissions are detected during this period, then the permittee may proceed with semi-annual visible emissions.

b. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.

[45CSR§30-5.1.c]

5.2.4. The permittee shall install, calibrate, maintain, and operate the following:

a. A device(s) capable of continuously measuring, and recording at least once per shift, the volumetric gas flowrate or fan motor power consumption across each fan serving to move gases through the tapping hoods and associated ductwork of Furnaces 3, 6, 7, 14, 15, and 16. Each gas flow measurement device shall have an accuracy of ± 10 percent over its operating range, and each fan power consumption measurement device shall have an accuracy of ± 5 percent over its operating range. If the option of volumetric gas flowrate is chosen, the device(s) shall be installed within 180 days of start-up of Furnace 15. If the option of fan motor power consumption is chosen, the device(s) shall be installed within 60 days of start-up of Furnace 15.

b. A device(s) capable of continuously measuring, and recording at least once per shift, volumetric gas flow rate or fan motor power consumption across each fan serving to move all gases from Furnace 15 to the baghouse(s) serving Furnace 15. Each gas flow measurement device shall have an accuracy of ± 10 percent over its operating range, and each fan power consumption measurement device shall have an accuracy of ± 5 percent over its operating range.

c. A device(s) capable of continuously measuring and recording pressure drop across each separate compartment of Baghouses 14 (0012) and 15 (0013) when servicing Furnace 15. Each such device shall have an accuracy of ± 5 percent over its operating range.

[45CSR§30-5.1.c; 45CSR14, R14-0017, A.18.a, b, c]

5.2.5. **CAM monitoring requirement.**

a. The volumetric gas flowrate or fan motor power consumption across each fan serving to move gases through the tapping hoods and associated ductwork of Furnace 15 shall be monitored continuously. Records shall be kept on site with entries including date and time of each reading, and readings results. If there were more than one reading taken during one day, the readings should be averaged on a daily basis to get a daily average (one for each 24-hr period). If there was just one reading taken during one day, this reading should be considered "a daily average". A daily average fan motor power consumption rate below 65 amps is considered an excursion.

b. The volumetric gas flowrate or fan motor power consumption across each fan serving to move gases from Furnace 15 to the baghouse(s) serving Furnace 15 shall be monitored continuously. Records shall be kept on site with entries including date and time of each reading, and readings results. If there were more than one reading taken during one day, the readings should be averaged on a daily basis to get a daily average (one for each 24-hr period). If there was just one reading taken during one day, this reading should be considered "a daily average". A daily average fan motor power consumption rate below 450 amps during full load (22.0 MW) periods is considered an excursion.

c. The differential pressure drop across each of the Baghouses 14 (0012) and 15 (0013) (Emission Point 017) shall be monitored continuously. Records shall be kept on site with entries including date and time of each reading, and readings results. If there were more than one reading taken during one day, the readings should be averaged on a daily basis to get a daily average (one for each 24-hr period). If there was just one reading taken during one day, this reading should be considered "a daily average". A daily pressure drop average outside of the range of **7"-13"** water gage is considered an excursion.

d. If an excursion occurs, corrective action, if necessary, shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions (Requirement 3.4.4), and recordkeeping and reporting shall be initiated. Records shall be maintained on site as per Requirement 3.4.2.

[45CSR§§30-5.1.c & 12.7; 40C.F.R. §§64.3(a), 64.3(b) & 64.6(c)(2)][Furnace 15, Baghouses 14 & 15]

5.2.6. **Commencement of operation**. The permittee shall conduct the monitoring of the Furnace 15 and Baghouses 14 and 15 required under 40 CFR Part 64 upon issuance of this permit.
[40 CFR §§ 64.7(a) and 64.6(d); 45CSR§30-5.1.c]

5.2.7. **Proper Maintenance** – At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[40 CFR § 64.7(b); 45CSR§30-5.1.c.] [Furnace 15, Baghouses 14 & 15]

5.2.8. **Continued Operation** – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[40 CFR § 64.7(c); 45CSR§30-5.1.c] [Furnace 15, Baghouses 14 & 15]

5.2.9. **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 CFR § 64.7(e); 45CSR§30-5.1.c] [Furnace 15, Baghouses 14 & 15]

5.2.10. **Quality Improvement Plan (QIP)** – Based on the results of a determination made under 40 CFR §64.7(d)(2) (permit condition 5.4.4.b), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e). Refer to permit condition 5.5.2.b.3. for the reporting required when a QIP is implemented.
[40 CFR § 64.8; 45CSR§30-5.1.c] [Furnace 15, Baghouses 14 & 15]

5.3. Testing Requirements

5.3.1. Tests that may be required by the Director to determine compliance with the emission limitations set forth in Sections 5.1.2 and 5.1.7 of this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at maximum achievable load unless otherwise specified by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, or 5D, as set forth in 40 C.F.R. 60, Appendix A.

b. Tests to determine compliance with SO_2 emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C as set forth in 40 C.F.R. 60, Appendix A.

c. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10 or 10B as set forth in 40 C.F.R. 60, Appendix A.

d. Tests to determine compliance with NO_x emission limits shall be conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 C.F.R. 60, Appendix A.

e. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 C.F.R. 60, Appendix A.

[45CSR14, R14-0017, A.17]

5.3.2. The permittee shall conduct tests to determine compliance with the nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), volatile organic compounds (VOC), and particulate matter (PM) emission limitations in Section 5.1.7 for Furnace 15 (Stacks 016 and 017). The Methods listed below from Appendix A of 40 C.F.R. Part 60 shall be utilized for purposes of conducting performance tests, unless the Director approves an alternate or equivalent method. Requirements shall be met with respect to submission of a test protocol and notification of testing.

Pollutant	Method
Nitrogen Oxide (NO_x)	7
Carbon Monoxide (CO)	10
Sulfur Dioxide (SO_2)	6
Volatile Organic Compounds (VOC)	25
Particulate Matter (PM)	5
Hydrochloric Acid (HCl)	26
Sulfuric Acid (H_2SO_4)	8

Subsequent testing to determine compliance with the nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), VOC, particulate matter (PM) limitations of Section 5.1.7 and hydrochloric acid (HCl) and sulfuric acid (H_2SO_4) limitations of Section 5.1.22, shall be conducted in accordance with the schedule set forth in the following table:

Test	Test Results	Testing Frequency
Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % NO_x, CO, SO_2, PM, VOC, HCl, H_2SO_4 limits	Once/3 years

Test	Test Results	Testing Frequency
Annual	If annual testing is required, after three successive tests indicate mass emission rates ≤50% of NO_x, CO, SO_2, PM, VOC, HCl, H_2SO_4 limits	Once/5 years
Once/3 years	If testing is required once/3 years, after two successive tests indicate mass emission rates ≤ 50% of NO_x, CO, SO_2, PM, VOC, HCl, H_2SO_4 limits	Once/5 years
Once/3 years	If testing is required once/3 years and any test indicates a mass emission rate ≥90% of NO_x, CO, SO_2, PM, VOC, HCl, H_2SO_4 limits	Annual
Once/5 years	If testing is required once /5 years and any test indicates mass emission rates between 50% and 90 % of NO_x, CO, SO_2, PM, VOC, HCl, H_2SO_4 limits	Once/3 years
Once/5 years	If testing is required once/5 years and any test indicates a mass emission rate ≥90% of NO_x, CO, SO_2, PM, VOC, HCl, H_2SO_4 limits	Annual

[45CSR§30-5.1.c, 45CSR§7-8.1, Furnace 15 (003-07), (Stacks 016 and 017)]

5.4. Recordkeeping Requirements

5.4.1. The Director may modify the requirement to record data in Sections 5.2.4.a and 5.2.4.b to establish a different frequency of recording such data.
[45CSR14, R14-0017, A.18.d]

5.4.2. Under the provisions of this permit, the permittee shall maintain records containing the following information in a format that can be readily made available to the Director:

- Hours of operation of EAF 15 on at least a daily basis
- Type and quantity of material produced in Furnace 15 on at least a daily basis
- The average sulfur content of the coal and charcoal mix going into EAF 15 on at least a monthly basis
- The amount of coal and charcoal going into EAF 15 on at least a daily basis
- Volumetric gas flowrate(s) through the tapping hood systems of Furnaces 3, 6, 7, 14, and 15 or fan motor power consumption of each fan serving to move gases through the tapping hood systems of Furnaces 3, 6, 7, 14, and 15
- Total volumetric gas flowrate(s) to Baghouses 14 (0012) and 15 (0013) when servicing Furnace 15 or fan motor power consumption of each motor of each fan serving to move gases to Baghouses 14 (0012) and 15 (0013) when servicing Furnace 15
- For the baghouse(s) in use by Furnace 15, the baghouse(s) pressure drop data (for each section or module)
- Fan performance curves for all fans serving Furnace 15 and those fans serving the tapping operations for Furnaces 3, 6, 7, and 14

- Recordkeeping of poling operations to determine compliance with 45CSR§7-5.3 and Section 5.1.3, provided that failure to keep such records shall not be a violation of this permit, but failure to keep such records shall be a waiver of the defense of 45CSR§7-5.3 as to poling.

- Records of maintenance checks and standard operating procedures required in Sections 5.1.5 and 5.2.1.

Said records shall be maintained on site for a period of five (5) years. Said records shall be certified by a responsible official or his/her designee and made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

[45CSR14, R14-0017, A.19]

5.4.3. The owner or operator of manufacturing process source(s) or combustion source(s) subject to 45CSR§10-4 (Section 5.1.23) shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to 45CSR§10- 8.2.c. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five years. Compliance with this requirement may be satisfied through compliance with the requirements of the approved 45CSR10 Monitoring Plan (Appendix A) submitted on December 8, 2004, and any amendments thereto.
[45CSR§10-8.3.a]

5.4.4. **Response to Excursions or Exceedances**

a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR § 64.7(d); 45CSR§30-5.1.c] [Furnace 15, Baghouses 14 & 15]

5.4.5. **General recordkeeping requirements for 40 CFR Part 64 (CAM)**

The permittee shall comply with the recordkeeping requirements specified in permit conditions 3.4.1 and 3.4.2. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR §64.8 (5.2.10) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
[40 CFR § 64.9(b); 45CSR§30-5.1.c] [Furnace 15, Baghouses 14 & 15]

5.5. Reporting Requirements

5.5.1. Upon start-up of the chosen devices required to be installed, calibrated and maintained in Section 5.2.4, the

permittee shall provide written notice of the type of device installed or of any future change in the type of device installed.
[45CSR14, R14-0017, A.20]

5.5.2. **General reporting requirements for 40 C.F.R. Part 64 (CAM)**

a. On and after the date specified in 40 CFR §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit CAM monitoring reports with the semi-annual monitoring report under permit condition 3.5.6. Incorporation by reference within the semi-annual monitoring report is not acceptable.

b. A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

1. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

2. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

3. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR § 64.9(a); 45CSR§30-5.1.c] [Furnace 15, Baghouses 14 and 15]

5.5.3. The permittee shall report details of all exceedances of the 2.15% coal and charcoal mixture sulfur content limit (as per requirement 5.1.8.1) on an annual basis.
[45CSR§30-5.1.c]

5.6. Compliance Plan

5.6.1. None.

6.0 Microsilica Operations Requirements [emission point ID(s): Microsilica Operations Buildings 155 and 156 (004-09, MS-1, MS-3, DM-1, DM-2, DS-1 , DS-2,) and emission point ID(s) (MS-1C, MS-1E, DM-1C, DM-1E, DM-2C, DM-2E, DS-1C, DS-1E , DS-2C, DS-2E, and 026)]

6.1. Limitations and Standards

6.1.1. The maximum amount of raw material processed in the dry microsilica facility shall not exceed 30,000 tons per year. Compliance with the annual throughput limit shall be determined using a 12 month rolling total. A 12 month rolling total shall mean the sum of the raw material throughput at any given time for the previous twelve (12) consecutive calendar months.
[45CSR13, R13-2052, A.1]

6.1.2. The maximum amount of raw material processed in the slurry mixing facility shall not exceed 10,000 tons per year. Compliance with the annual throughput limit shall be determined using a 12 month rolling total.
[45CSR13, R13-2052, A.2]

6.1.3. Particulate Matter emissions from the equipment and processes identified in permit application R13-2052 as DM-1, DM-2, DS-1, and DS-2 shall be controlled by baghouses. The baghouses shall be installed, operated, and maintained so as to achieve a minimum overall efficiency of 99%.
[45CSR13, R13-2052, A.3]

6.1.4. Particulate Matter (PM) emissions from the facility shall not exceed the following:

Emission Source	Pounds per Hour	Tons Per Year
DM-1	0.01	0.04
DM-2	0.01	0.04
DS-1	0.27	0.02
DS-2	0.27	0.02
Total	**0.56**	**0.12**

[45CSR13, R13-2052, A.4]

6.1.5. At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Director thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Director may specify shall be conducted to determine compliance.
[45CSR§13-6.1, R13-2052, B.3]

6.1.6. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-2052 and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13, R13-2052, C.3]

6.2. Monitoring Requirements

6.2.1. See Section 3.2.

6.3. Testing Requirements

6.3.1. See Section 3.3.

6.4. Recordkeeping Requirements

6.4.1. In order to determine compliance with Sections 6.1.1 and 6.1.2 of this permit, the permittee shall maintain certified monthly records of the amount of raw material processed in the slurry mixing facility and the dry microsilica facility.
[45CSR13, R13-2052, B.4]

6.4.2. See Section 3.4.

6.5. Reporting Requirements

6.5.1 See Section 3.5.

6.6. Compliance Plan

6.6.1. None

APPENDIX A

45CSR10 Monitoring Plan for **Alloy Facility**

- **Electric Submerged Arc Furnaces**
  Furnaces 3, 6, 7, 9, 14, 15, and 16

December 8, 2004 (modified on May 16, 2012)

45 CSR 10
Testing, Monitoring, Recordkeeping and Reporting Plan:

Facility Information:

Facility Name: Alloy Facility - WVA Manufacturing, LLC

Facility Address: PO Box 248, Alloy, WV 25002

Facility Contact: Roger Wagner , Manager - SHEA, 304-779-3379

In accordance with 45 CSR 10, §8.2.c, and 45 CSR 10A §§5-7 the following is the proposed plan for monitoring compliance with the sulfur dioxide standards of 45 CSR 10, §4 for manufacturing sources:

Facility Description:

WVA Manufacturing, LLC (SIC Codes 3313 and 4911) owns and operates a ferroalloy manufacturing plant producing silicon and ferrosilicon near Alloy, Fayette County, WV (Alloy Facility). Coal, gravel, and wood chips are brought to the plant by truck, rail and barge. These raw materials are sent to the mix building, batched and conveyed to each of the furnaces where it is reduced to silicon metal. Molten metal is tapped into large crucibles and cast into chills. After the metal hardens, it is sent to packing area for crushing, sizing, and packaging. The product is shipped directly by rail or packaged for specific customer.

Sources of sulfur dioxide emissions are summarized in Table-1A below:

Table 1-A Manufacturing Process Units at Alloy Facility

Title V ID	Unit Description
003--01	No. 3 Furnace
003--03	No. 6 Furnace
003--04	No. 7 Furnace
003--05	No. 9 Furnace
003--06	No. 14 Furnace
003--07	No. 15 Furnace
003--08	No. 16 Furnace

I. Manufacturing Sources

Alloy Facility operates electric arc furnaces (EAF) for the production of silicon metal. Sulfur dioxide emissions are generated in the EAFs Nos. 3, 6, 7, 9, 14, 15 and 16 from the use of metallurgical coal as a raw material. Actual emission testing for SO2 has been conducted on one of the furnaces, EAF 15, and based on the processes utilized and configuration of the EAFs , the SO2 testing data derived from EAF 15 is valid and representative of the other EAF units.

Applicable Standard:

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. 45 CSR 10, §4

Initial Compliance Testing:

45 CSR 10A §5.2.a. provides for an initial compliance test conducted in accordance with 40 CFR Part 60 , Appendix A , Method 6 or other equivalent EPA testing method, and the results of this initial testing are to be considered in establishing the subsequent monitoring plan . Alloy Facility has performed stack tests for SO_2 on Furnace 15, which is in accordance with 40 CFR Part 60, Appendix A, Method 6, conducted on December 15, 1998 at rates equaling 53.0 pounds per hour / 222.60 tons per year and August 25, 1999, at 54.72 pounds per hour/ 229.82 tons per year for an average of 53.86 pounds per hour /226.21 tons per year which translates to a concentration average of 18 ppm, only a fraction of the 45 CSR 10 §4 regulatory standard of 2000 ppm. This 18 ppm concentration is representative of the emission rate from the other EAF furnaces as well. Stack test results from June 14, 2011 indicate an average flow rate of 418,909 acfm (inlet)/503,181 acfm (outlet), SO_2 average concentration of 24.4 ppm and a temperature of 221 F (inlet)/182 F (outlet).

Based on these results Alloy Facility is requesting an exemption from any further testing.

Monitoring:

CEMS are required only if there is both the potential to emit 100 tons per year (tpy) of sulfur dioxide **and** the potential to emit sulfur dioxide at a rate greater than or equal to 90% of the applicable emission standard, which is 2,000 ppm.– 45 CSR 10A,§6.2.b.

Since testing reveals that the potential to emit from each furnace is only a fraction of the 2,000 ppm standard and metallurgical coal is the only raw material utilized in the ferroalloy furnaces with any significant sulfur content. The sulfur content data is consistent with historical sulfur content data during the June – July 2011 stack tests were in the range of 0.8% to 0.97%, and resulted in stack test results generally in the range of 15 ppm SO_2 to 25 ppm SO_2. Even with the new maximum allowable sulphur content of 2.15%, which is more than double the former maximum historical sulphur content (0.97%), compliance with the 2000 ppm stack concentration limit is easily achieved because the expected stack concentration will still be less

than 100 ppm SO_2. Based upon this margin of compliance with the 2000 ppm limit, Alloy Facility does not believe that on-going monitoring of the sulfur content of the metallurgical coal or reporting is necessary. Alloy Facility therefore requests that these requirements be waived.

The following information is presented in the context of the requirements contained at for a §45 CSR 10A, §6.4:

- A response plan to be implemented during excursions (45 CSR 10A, 6.4.f)

➢ As stated above, the maximum historical sulphur content is 0.97% (25 ppm). Even with the new maximum allowable sulphur content of 2.15%, which is more than double the former maximum historical sulphur content, it is not possible to exceed the 2000 ppm limit and no response plan will be required.

Reporting:

Since it is not possible that the 45 CSR 10 §4 standard of 2000 ppm can be violated by the electric arc furnaces, a "CEMS Excursion and Monitoring System Performance Report should not be required for these units.

Monitoring Plan - Revisions:

Alloy Facility reserves the right to periodically revise the elements of this 45 CSR 10/10A monitoring plan as circumstances in plant equipment / operations dictate. Revisions will become effective only after approval by DAQ.